



**Evaluation of Financial Performance of
Maruti Udyog Ltd since 2000-2001
THESIS**

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*Dedicated
To
My Parents*

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(Faisal MRK Sherwani)

Preface

The first car touched the Indian soil in 1897 during the British rule. Cars were imported in India during those times; therefore buying a car was a costly affair. The Indian automobile industry saw its dawn in 1942 with the launch of Hindustan followed by Premier in 1944. Mahindra & Mahindra was founded in 1945. But not much progress was made in this sector because of the control of Government and strict laws imposed on this sector. But in the late 1970s, the controls were lifted and this gave invitation to the companies over the world to come and invest in India. The liberalisation policy let companies like Suzuki and Toyota from Japan and Hyundai from South Korea to do business In India. Maruti Udyog Limited (MUL) was established to meet the demands of the automobile sector in India. It was enacted through an act passed by the parliament. The company came into being as a joint venture between Suzuki Motor Company of Japan and the Government of India in Oct 1983. Suzuki owned 26% of the equity and the rest of it was of the Government with the agreement that Suzuki will provide the latest technology to the Indian customer. Suzuki had a brilliant history of making the small passenger cars all over the world. In 1987, the share of Suzuki was raised to 40%; on a condition that was already mentioned in the agreement. In 1992, Suzuki still further enhanced its equity to 50%. In 2002, the government handed the management control of Maruti Udyog Ltd (MUL) to Suzuki Motor Corporation (SMC) for a consideration of Rs 1,000 crore rupees. At the time of complete handing over of the control, the government held 49.76% equity in Maruti while Suzuki Motors Corporation was having 50% equity and the remaining 0.24% was held by the employee's trust. SMC acquired the full control and ownership of the country's leading automobile company by way of the government renouncing its subscription to a Rs 400-crore rights issue of MUL. After the rights issue, SMC acquired 54.20% stake and the Centre's stake falling to 45.54%. The government sold its 27.5% share to the public in June 2003 and the rest of it was done away with in May 10, 2007. Since its inception to the present day, the company has not looked back. It has been and still is the unchallenged leader in the Indian automobile sector. It has become the favourite destination for the car buying individuals in India. The company has long crossed the landmark of a sale of 10 million units which no other company doing business in India has been able to achieve

The automobile industry is considered an engine for economic growth of the country. Maruti Suzuki has proven that it is always ahead than its competitors because of continuous

innovations and technological upgradations. The company has set a benchmark of excellence because of Research & Development activity as Maruti Suzuki believes that this activity will enable the company to offer superior and environment friendly products to customer with complete satisfaction. Maruti Suzuki's environmental performance is really uncountable. Considering the growing vehicle pollution, the company introduced advanced K-Series engine in its vehicles which resulted in reduction of CO, THC and NOx emissions by almost 50 percent. As far as economic performance is concerned, Maruti Suzuki's last few year's statistics of Domestic sales, Export, narrates that still Maruti Suzuki is the leader of Indian Automobile sector.

JD Power Asia Pacific Survey 2015 of the Indian automobile market declares Maruti Suzuki, the largest automaker company of India as the top company, providing the best after-sales service to its customers. MSIL bagged this position for the sixteenth consecutive year. The company has topped the JD Power 2015 Customer Service Index Study (Mass Market Brands) also. Maruti Suzuki, scored 906 points on a 1000 point scale, leading the mass market. The first runner up is Honda Cars India with a score of 880. Both the companies have scored above the industry average of 866. Other companies, including Hyundai Motors at 849 and Tata Motors also at 849, Mahindra& Mahindra at 846, Toyota Kirloskar Motor at 840, Nissan Motor India at 802, GM India at 786, Ford India at 782, Renault India at 781, Fiat Chrysler Auto India at 777, Volkswagen India at 774 and Skoda India at 769, rank below the industry average.

MSL has been successfully leading the automobile sector in India for last so many years. It has the strongest network of sale and after-sale services which holds the key to its success. Moreover the company is consumer oriented in its approach as it offers high quality products at par with the other brands at an unmatched low price. The variety in products, the affordability, the sale and servicing costs, the connectivity and the approachability makes MSIL the uncontested leader of Indian automobile industry.

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Abstract
of the
Thesis
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since 2000-2001

Introduction

One of the India's major industrial sectors is the automobile sector. Following to the liberalization, this sector has been suitably described as the shining sector of the Indian sub-continent. On the canvas of the Indian economy, automobile industry occupies a prominent place. The study focuses on the financial performance of Maruti Udyog Limited. Financial evaluation is the process to decide the operating and financial features of a firm from financial statements and accounting. Financial performance of Maruti Udyog Limited has been focused by Liquidity analysis and leverage analysis (long term solvency analysis). Liquidity analysis effort the companies to meet its short term obligations. Leverage ratios measure the long-term solvency of a firm i.e. capacity to repay the principal amount when due; and the capability to pay the interest and dividend at the appointed time and periodically.

If you have travelled in India, taken a route to anywhere around this great nation, chances are you've driven with us. For over three decades now, Maruti Udyog cars have been going places.

Indian Automobile Industry

History of Indian automobile industry shows that it has grown with leaps and bounds since 1898, a time when a car had touched the Indian streets for the first time. But now India is in verge to rewrite history in different conditions as it is home to 40 million passenger vehicles and Indian manufactured cars and other automobile products are touching other nation roads. Presently Indian automobile industry is regarded as largest and second fastest growing industry after China in the world with annual production of over 3.9 million units. Its passenger cars and commercial vehicle manufacturing industry ranked sixth largest in the world. One of the best things happen for the Indian automobile market in the recent years was its improvement in

the export sector. In the year 2003-04 for the first time in Indian history vehicle worth more than 1 billion USD were exported with the growth rate of 56%. In the year 2009 India emerged fourth largest exporter of passenger cars, in 2010 with the production of more than 3.7 million automotive vehicles with an increase of 33.9% India became third largest exporter of passenger cars. It contributes 4% of the national GDP and accounts for 5% of the Indian industrial output. With employing 13 million people directly or indirectly it has become one of the major employment generators in the country, with the present growth trend it is expected that employment will double by 2016.

Maruti Udyog Limited

We started out in 1982 in Gurgaon, Haryana. Little did the then quiet suburb of New Delhi know that it was going to become the epicentre of the automobile revolution in India? The year marked the birth of the Maruti Udyog factory. India turned out 40,000 cars every year. The new Maruti Suzuki 800 hit the streets to begin a whole new chapter in the Indian automobile industry.

The company set out with an obsession for customer delight, one that was unheard in the corridors of automobile manufacturers then. It was about a commitment to create value through innovation, quality, creativity, partnerships, openness and learning. It created a road that was going to lead the world in to a whole new direction, laid out by Maruti Udyog. Today, Maruti Udyog alone makes 1.5 million family cars every year. That's one car every 12 seconds. We drove up head and shoulders above every major global auto company. Yet, our story was not just about making a mark. It was about revolutionary cars that delivered great performance, efficiency and environment friendliness with low cost of ownership. That's what we call true value. We built our story with a belief in small cars for a big future.

The story of the company encouraged millions of Indians to make driving a way of life. India stepped up with our vision to take on the fast lane. A comradeship had begun. Something incredible had begun. So, what drives us? Millions of Indians have put their faith in us. A team of over 13200 dedicated and passionate professionals that turned out 15 car models with over 150 variants. The drive is backed up by a nationwide service network spanning over 1500 cities and towns and a sales network that spreads across 1471 cities, 2 state of art factories, which together turn out 15 lakh

cars annually. And a commitment to make Indian roads safer through a network of training infrastructure that imparts driving skills. Finally, the inspiration comes from one place – India's hopes, dreams and aspirations. The Maruti Udyog journey has been nothing less than spectacular. But to be honest, we've only just begun.

The automobile sector is a significant contributor in national economy of any country and it is also an indicator of the living standard of the people of a country. Being a developing country, there are a number of domestic and foreign automobile companies working in India. Maruti Suzuki is one of the leading companies of automobile sector, accounting for about 50 per cent of the total sales of the industry in 2012. The market share of Maruti Udyog Limited in passenger car segment in Domestic Market is about 37 per cent in 2014. The company has introduced a variety of brands of passenger cars to cater the needs of all segments of market. The company has received many awards and achievements through continuous innovations and technical know-how. The present study is an attempt to evaluate the financial performance of Maruti Udyog Limited which is one of the largest automobile sector companies in India. The financial performance has been evaluated by exploring the impact of Domestic and International Sales on Net Worth, Profit after Tax and Earning per Share of MUL.

Maruti Suzuki is a joint venture between Government of India and Suzuki Motors Corporation, Japan. It has a distinction of country's largest car manufacturing company and command the car industry market with a market share of over 80%. To capitalize growing demand world giant automobile manufacturers have entered Indian market with confidence and posing threat to a market leader Maruti Suzuki.

Review of Literature

Many of the studies already been done and evaluate the financial position of the company with the help of various ratios but no research thesis is considered complete unless a widespread literature review is done by the researcher. One of the basic purposes of doing this exercise is to find the research gap.

Objectives of the Study

The core objective of the study in changing business environment is to understand and analyze qualitative and quantitative performance of Maruti Udyog Ltd. and to assess

and analyze their intrinsic value, practical risk, exposure and to visualize competitive and comparative efficiency and their profitability position which can be considered as a judicious recommendation for improvements of their performance.

The objective of the study is to evaluate, analyze and interpret the Financial Performance of Maruti Suzuki Ltd since 2000 are:

1. To review the historical background and growth of Maruti Udyog Limited
2. To evaluate the liquidity, solvency and profitability position of the Maruti Udyog Ltd.
3. To evaluate the financial strength of Maruti Udyog Ltd
4. To propose ways and measures to improve financial performance of Maruti Udyog Ltd.
5. To make a comparative and analytical study of performance Evaluation of Automobile Industry in India.

Hypotheses of the Study

A hypothesis is a tentative statement which reveals the relationship among two or more variables. It is a specific and testable prediction about what you expect to happen in the study. It is a proposed explanation for a fact. It explain in material terms what you expect will happen in a certain situation. The hypothesis of the study has been prepared as under:

1. H01: There is no significant relationship between Size, Growth and Profit of Maruti Udyog Ltd. since 2000
2. H02: there is no significant difference among the selected automobile companies in regard to their financial performance.
3. H03: there is no significant difference in Sales Growth of Maruti Udyog Ltd.

Limitations of the Study

There are some limitations of the study which are generally found in all studies conducted at human level. The main limitations of the present research are as follows:

1. The study is based on secondary data obtained from the published annual reports of MUL and as such its finding depends entirely on the accuracy of such data.
2. There is non-availability of some required financial data for study has restricted the size of the sample.
3. The present study is largely based on ratio analysis which has its own limitations.
4. The analysis of financial statement of a business enterprise gives diagnostic indicators. As an external analyst, obviously has no access to internal data. Therefore, inside view of the organization cannot be characterized in this study.
5. Only secondary data (quantitative financial data) have been used for the performance evaluation of sampled units.
6. Only ten years period has been taken with limited no. of financial indicators.
7. Whatever limitations the published data of sample companies consists, the study also suffers with the same.
8. Every living and Non- living on this world is its own limitation which restricts the usability of that thing. The same rule applies to this research work. The main limitation of the study as it is a new and developing concept, so it is not possible for all new and developing companies.
9. A Study is undertaken by individual researcher therefore all the limitation of the individual researcher exists here also.
10. It is secondary data based study, so the limitations of the secondary data reveals with this study.
11. As it is a new concept, it becomes hard task and through for accountants and accounting practitioners for fulfilling all formalities.
12. Profitability is affected by many factors, internal as well as external, but the researcher is taking into consideration only some factors which are relevant to study.

Findings of the Study

The main objective of the liquidity ratio is to measure the liquidity of the firm and its ability to meet its maturing short term obligation, it is also recognized as the ability of a firm to realize value in money, the most liquid of assets among all assets. It is good for the company to have sound liquidity, but the implication of excess liquidity have drastic impact on company's economy, though it is guarantor of solvency. High liquidity reflects lower profitability, deterioration in managerial efficiency, increased speculation and unjustified expansion, extension of too liberal credit and dividend policies. On other hand too little liquidity create financial panic and lead to frustration, business objections, and reduced rate of return, missing of profitable business opportunities and weakening of morale. The outcome of the liquidity analysis of Udyog company shows that it is having better solvency position due to higher liquidity and is in safe position, even its liquidity position is not so high which may create risk in coming future. But company is meeting out its short term quantitative obligations like quantum, structure and utilization of liquid assets efficiently and qualitative obligations like meeting all present and potential demands on cash in a manner that minimize the cost and maximize the value of the firm. It has to maintain its liquid position in order to meet out its quantitative and qualitative obligations safely for better future.

1. Since we know that automobile sector contributes a lot in a national economy of the country where Udyog India Company plays a key role in this contribution. In this paper the financial performance of Udyog India Limited has been observed. The key findings of the study are as follows:

- The company has the largest sales and service network provider amongst car manufacturers in India.
- Sales figure of previous data shows that the company has performed well in the market.
- Performance of the company in domestic sales is better compared to export market.

- Market study shows overall performance of the sales of vehicles is satisfactory in all types of market.
 - The effect of sales on Profit after Tax [PAT] is found to have significant relationship.
 - Impact of sales in Earning Per Share [EPS] shows insignificant relationship.
 - Upcoming models of MSIL are promising in such a manner that they may give a tough competition to the rival companies. This should directly influence the overall performance of the company.
2. The production of Udyog Ltd in market shows fluctuating trend throughout the study period. Sector followed by passenger cars and multi utility vehicles and commercial vehicles. With a view of making an inter-industry comparison of the overall production performance, production trends are taken under consideration. The projection of production of automobiles in India shows that multi utility vehicles are having good market potential in our country. Dispersions in production of industries under three sectors revealed through the mean value of the series and value of co-efficient of variation for each industry. It is observed that Udyog India Ltd shows better performance in this regard.
3. The capacity utilisation ratio of commercial vehicles sector varied in a range of 67.59 per cent from 29.29 per cent to 96.88 per cent, passenger cars and multi utility vehicles varied 56.68 per cent from 34.75 per cent to 91.43 per cent and two and three wheelers sector varies in a range of 29.57 per cent from 43.84 per cent to 73.41 per cent during the study period. It is therefore obvious that the Indian automobile industry has not utilized its plants capacity on an average of more than 40 per cent which remains idle during the study period. The mean capacity utilisation is the highest (being more than 100 per cent) in Udyog India Ltd, which indicates that company utilised its plants effectively and efficiently among the industries. Udyog India Ltd showed better performance with regard to their capacity utilisation. The capacity utilisation of the industry varies greatly irrespective of the sector of which they belong.

4. The sales of passenger cars and multi utility vehicles market show rising trend throughout the study period. However, sales of commercial vehicles market shows fluctuating trend. The projection of sales of Udyog Ltd in India revealed that commercial vehicles, passenger cars are growing markets in the years to come in our country. The analysis of company - wise dispersion in sales of Indian automobiles industry over the study period reflected the same picture with regard to production performance.
5. The analysis of company - wise dispersion in market shares of Indian automobile industry reveals that the mean rates of market share vary greatly in case of all the industries under examination irrespective of the sector of which they belong. It is observed that Udyog India Ltd in passenger cars and multi utility vehicles has the highest market share during the study period. Capital Gearing Ratio of MSIL: The CGR of HMIL was more than the standard set by SEBI except 2000, 2007, 2008 and 2009 where it was less than 1:4. On an average it was 1.89 times only.
6. Debt Equity Ratio of MSIL: The debt-equity ratio of MSIL was less than the standard norms i.e. 1:1 during the study period. On an average it was 0.14 only during the reference period. It shows a sound long-term financial strength of the company from the creditors' point of view. The creditors are interested in low debt equity ratio. Debt Equity Ratio of HMIL After analyzing the DER of HMIL, we found it was less than the standard norms of 1:1 except 2009 where it was 1.38.
7. Interest Coverage Ratio of MSIL: In the year 2001 it was almost NIL in the case of MSIL which means profit was negative in this year and the company had to face difficulty in paying its interest on loan on time.
8. Interest Coverage Ratio of HMIL: After analyzing the ICR of HMIL we found from the year 2000 to 2006 there was an increasing trend in this ratio and after that it started decreasing which is not a good signal for the company because this means that the company is not in a good position to pay its interest on loan on time. In 2009 it went very down to 2.35 as compared to previous year ratio which was 10.48.

9. The profitability performance of Udyog India Ltd under review has been studied by computing various ratios relating to profitability. The profitability of the Udyog India Ltd measured through operating profit margin ratio is satisfactory in Indian automobile industry and showed adequate to cover the fixed charges and dividend reserve during the study period. However, Udyog India Ltd gives a satisfactory return to its shareholders during the study period. The overall analysis of profit margin ratio shows that the operating efficiency of Indian automobile industry is satisfactory from the point view of shareholders. Gross Profit Ratio of HMIL: The Gross Profit Ratio of HMIL can't be said satisfactory during the study period in 2009 it was 6.31. In all the years from 2000 to 2008 it was between 10 to 20 percent which indicates that the company can't run its operation activities very smoothly. Net Profit Ratio of MSIL: In 2000 MSIL has earned a Net Profit of 34.87 percent and after that there has been a decreasing trend up to the year 2004 but from the year 2006 to 2008 it shows an increasing trend. The main reason of low net profit ratio was more operating and non-operating expenses which need control.

10. Efficiency analysis measures how efficiently the firm employs its resources. The study revealed that Udyog Company is having better speed of converting various accounts into sales or cash. The long term financial stability of the firm may be considered as dependent upon its ability to meet all the liabilities, including those not currently payable. Current Ratio of MSIL: The Current Ratio of MSIL has not been satisfactory as it does not contain the ideal ratio of 2:1. After analysing the Fixed Assets Turnover Ratio (FATR) of MSIL, we found that the company has not used its fixed assets in a proper way to generate more revenue. Stock Turnover Ratio of MSIL: After analysing the Stock Turnover Ratio of the company, it can be said that the company's position was sound. There has been a better utilization of stock in this company.

11. Udyog is having sound financial strength which is good for shareholders, investors and other interested parties who are influenced by company's growth and performance and in future would prefer to invest in company. Difficulties for Udyog Company will arise when its massive retained earning fund and other financial resources lay idle and company does not have any effective development

and expansion program to invest them. The idle resource will reduce its earning and will increase liability of shareholders. So Maruti Company has to concentrate on this matter for better future and growth.

12. Market value analysis indicates the firm's stock price to its earnings and book value per share. These ratios are indicator of investor's evaluation of companies past performance and future prospects and their likeness and dislikes in regard to the firm. In the study it has been found that Udyog Company has sound market value and it has better EPS, PER & BVPS ratios which reflect Udyog company's better capital productivity, its track record and distribution policy, speculative trading, state of economy, efficiency of management. If company kept this market momentum then during recession it will not be in trouble but will gain more confidence among the investors.
13. The study found that Maruti has performed better and leads in the liquidity analysis and secured first rank.
14. Overall analysis of a company's found that performances have a deep impact on market value of the respective companies share price. Market value analysis of companies indicates that share price of Maruti and Tata will move up if certain strategic correction might carried out in the market.

Suggestions/Recommendations of the Study

Keeping in view of the above observations relating to the study, the following measures are suggested which would go a long way to improve the performance of Udyog India Limited.:

1. It is suggested that still there is a need for Indian automobile industry to adopt producing and selling wide range of products, to adopt better market strategy, by reducing cost and revising selling prices to enhance the value of turnover so as to go ahead in the era of competitions.
2. It is obvious from the study that Indian automobile industry has not utilised its plan capacity on an average of more than 40 per cent which remain idle during the study period. It is therefore suggested that the management of the selected unit

should concentrate on overcoming the problem of power cuts, implementing research and development programs, application of latest technology and making industrial relation cordial and congenial to increase the capacity utilization.

3. The profitability trend of selected Indian automobile industry experienced a strong tendency in profitability to decline over the study period. Therefore, it is suggested that all the selected industries should undertake cost control measures further so that increased profit margin of the companies may enhance the earning power ratio. In this regard further reduction of excise duty, tariff and surcharge of sales tax and steps to control operating expenses are the measures suggested for the improvement of profitability trend.
4. Cost accounting and cost audit should be made mandatory in automobile industry and they should be called to prepare cost sheet along with their annual financial statement.
5. A systematic, prompt and regular flow of information and its analysis is important for improving productivity, efficiency and profitability. A suitable management information system needs to be evolved which will take care of the data requirement of administrative officers as well as other units like factory etc., for internal management and control. Appropriate organisational arrangements should be made for the successful implementation of management information system in Indian automobile industry.
6. At present, in India the financial statements are presented on historical cost basis. As such these statements do not exhibit the correct realizable value of the assets on the date of the balance sheet.
7. At present, the profit and loss account of multi-product concern is disclosed in a consolidated form which cannot measure and judge the performance and profitability of each activity. Hence, the profit and loss accounts should be prepared on departmental activity basis by such multiproduct concerns. As the Current Assets of the companies reveal that these are not sufficient to meet its current liabilities so the companies should try to increase their current assets. Companies should determine the maximum and minimum cash balance to

be kept in the business operations. A separate cell should be established for the proper control on cash balance. It is suggested that the companies should exercise Budgetary Control System to make proper cash management in the companies and if there is any idle cash and bank balances, it should be utilized in a profitable manner.

8. It is also suggested that EVA has been used as a performance evaluation tool of the organisation. The cost drivers of EVA like sales growth, operating profit margin, cost of capital etc., should be identified and the performance should be measured based on the improvement made in this value drivers. It appears to be useful in spotting changes in a company's on-going performances that are hidden in EPS.
9. In order to improve the Operating Profit Ratio of the companies it is suggested that the management of the companies should exercise control over operating cost. To serve this purpose, the companies should acquaint its employees with technology up gradation through training and refresher courses so that the productivity of the employees in the companies might be increased and operating cost be reduced.
10. The Operating Expenses are increasing with the growth in sales volume. The companies should introduce system of Internal Control by which this can keep a check on operating expenses. In order to reduce the Operating Expenses further, it is suggested that the existing expanded capacity of the companies should be utilized fully so that the Operating Expenses could further be minimized. The Management of the companies should exercise control over operating expenses.
11. A vehicle retirement programme will assist not only in fleet modernization and reduction of emission but will also provide quantum fillip to the demand should be put in place.
12. There is a need to brief the international community's on technological and quality related capabilities at Indian automobile industry. Substantive efforts are required for educating opinion leaders and build a strong 'made in India' brand in

overseas markets. Existing incentives for promoting exports are considered inadequate. An institutional mechanism such as the Automobile Export Promotion Council which can address industry-specific issues and facilitate exports is urgently required.

13. In MSIL the Fixed Assets Turnover Ratio was lower than the standard norms of 5 to 6 times in some years, which indicates sufficient idle capacity. It is suggested that immediate steps be taken by the companies to utilize their resources.
14. There was a fluctuating trend in the Working Capital of MSIL because the working capital in terms of sales could not justify its size. Hence it is suggested that accurate forecasting of working capital should be encouraged to the possible extent so that the companies might enhance its profitability.
15. The main sources of funds especially Borrowed Funds and Investments need to be effectively managed so as to enhance the profitability in the companies. Similarly, Capital Expenses needs to be properly planned and effectively managed so as to justify its expansion.
16. The companies in future should raise funds for further expansion/diversification purpose from long term borrowings instead of Head Office Account. This can be done by issuing debentures and receiving more loans from banks and public. A strict vigilance should be observed to ensure that right funds are used for right purposes.
17. Although, the sales of the companies shows an increasing trends, but still it is strongly recommended that sales should be increased by applying new methods in the market for the purpose of rapid increase. Special market surveys are made in order to find out the avenues of pushing their goods.
18. MIS should be made more sound so that the implementation of top management decisions might be more effective and quicker at all levels so that the profitability of the companies might be strengthened by taking necessary action in time.

19. Modernization of Plant should be made by way of arranging funds at a concessional rate of interest or by bringing out initial public issue so as to minimize the wastage and enhance the profitability of the companies.

Conclusions

The automobile industry is considered an engine for economic growth of the country. Udyog has proven that it is always ahead than its competitors because of continuous innovations and technological upgradations. The company has set a benchmark of excellence because of Research & Development activity as Udyog believes that this activity will enable the company to offer superior and environment friendly products to customer with complete satisfaction. Udyog's environmental performance is really uncountable. Considering the growing vehicle pollution, the company introduced advanced K-Series engine in its vehicles which resulted protection of environment. The performance of Maruti has no comparison in the context of India due to proper service, availability of parts and mileage which make the Maruti cars leader in Indian Market.

List of Acronyms

ANOVA	Analysis of Variance
BSE	Bombay Stock Exchange
CAGR	Compound Annual Growth Rate
CSI	Customer Satisfaction Index
EMI	Equated Monthly Instalment
EVA	Economic Value Added
FATR	Fixed Assets Turnover Ratio
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GTEs	Government Trading Enterprises
ICSI	Institutes of Company Secretaries of India
IPO	Initial Public Offerings
JV	Joint Venture
MDS	Driving Training School
MDA	Multiple Discriminant Analysis
MNCs	Multinational Corporations
MSIL	Maruti Suzuki India Ltd.
NSE	National Stock Exchange
NW	Net worth
PAT	Profit after tax
P/E ratio	Price Earnings Ratio
RBI	Reserve Bank of India
ROI	Return on Investment

R&D	Research and Development
SMC	Suzuki Motor Corporation
SPIL	Suzuki Power train India Limited
SPSS	Statistical Package of Social Sciences
SUV	Sports Utility Vehicle
SWOT	Strength, Weaknesses, Opportunities and Threat

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Introduction

The present chapter dealt with the introductory background of the research topic along with a concise discussion on Maruti Udyog India Limited, need and rationale of the study and chapter plan as well. Under this study researcher discusses the various parameters for the evaluation of financial performance of Maruti Udyog India Ltd. (MUL). And methodology used and explained by researcher in the present study. The researcher has been done through review of literature and no such study on this subject has been done previously. The researcher covers issues which are not touched and draw attention to the untouched issues of the financial performance of Maruti Udyog India Ltd. The present study is based on secondary data and gathered information from the Annual Reports, Financial Statements and Newspapers etc. Under present study researcher attempt the study in a systematic manner, the following argument gives complete state of affairs of the theory of financial performance evaluation of Maruti Suzuki India Ltd.

In modern era of globalization where investment avenues, risk and return change at rapid pace and leave no time for promoters, investors and other interested parties to go through firms balance sheet and other financial statements in order to make an analysis of firms performance for future course of action. Evolution of financial ratios provided solution to this problem and proven effective and a very powerful analytical tool useful for measuring performance of an organization, they are quotient of two numbers and the relation expressed between two accounting figure is known as financial and accounting ratios. Its analysis is a systematic process of comparison of one figure against another, which makes a ratio, and its analysis is extremely helpful in providing valuable insight into a company's picture. It is used to describe significant relationships which exist between figure shown in balance sheet, in profit and loss account, in budgetary control system or in any other part of the financial and accounting organization. It concentrates on the interrelationship among the figures appearing in the financial statements.

The accounting and financial ratios are important indicators' of the company's health and indicate a quantitative relationship which help management to analyze the past performance of the firm and to make further projections and decisions. It normally identify and project business firm's strength and weakness in two ways, firstly it provide an easy and effective way to make

comparative study of present performance with past, secondly it identify and depict the areas in which a particular business is competitively advantaged or disadvantaged through comparing ratios to those of other business of the same size within the same industry. They are also used for inter firm and intra firm comparison and will also be used in financial planning and decision making. They are helpful in deciding upon the right investment strategy in a particular sector through analysis of economy, industry and company. But they will be effective only when they are compared with ratios of the base period or which standards or with the industry ratios.

The appraisal of the ratio will make scientific and judicious analysis about the strength and weakness of the firms operations, it helps concerned parties to assess strength and make evaluation of certain aspects of the firm's performance. Shareholders and prospective investors like to analyze ratios for taking investment and disinvestment decisions. Bankers' who are back bone of working capital will like to analyze ratios for appraising the creditworthiness of the concerned firms. Financial institutions who are main source of long term debt would like to analyze ratios of project appraisal and debt servicing capacity of the firms.

The financial analysts will analyze ratios for making inter and intra firm comparative study and recommending to the investing public. Credit rating agencies analyse ratios to give them rank according to their performance and strength. Government agencies analyze ratios of a firm to review its performance and projections. The management of a company analyzes the ratio in order to determine the financial health and its profitability. Ratios are also used for inter firm and intra firm comparison and will also be used in financial planning and decision making the passenger vehicles was 12.17 percent. Passenger cars grew by 11.79 %, Utility vehicles by 10.57 % and multipurpose vehicle grew by 21.39 %. During the period automobile export registered growth of 22.30% in which commercial vehicle and passenger vehicle export grew by 19.10% and 9.37% respectively. With a number of foreign brands joining ranks with domestic manufacturers, the Indian consumer is now flooded with choice. Further market demand of heavy commercial vehicles and improved overall vehicle export bolstered healthy rise in its sales and consolidated 2nd rank of auto component industry in the world. In 2009-10 Indian auto industry produced overall 4,200,556 vehicles, exported 505,920 vehicles and sold 4,188,932 vehicles.

The calculations of ratios are mathematical and relatively very easy and simple but analysis and interpretation requires expertise and can be carried out by the skilled analyst.

While interpreting the financial information's, limitations imposed by the accounting concepts and methods have to be importantly recognized by the analyst. Information and non information nature will be taken into consideration before a meaningful analysis is made. They will be effective only when they are compared with ratios of the base period or which standards or with the industry ratios.

Background of the Study

One of the India's major industrial sectors is the automobile sector. Following to the liberalization, this sector has been suitably described as the shining sector of the Indian sub-continent. On the canvas of the Indian economy, automobile industry occupies a prominent place. The study focuses on the financial performance of Maruti Suzuki India Limited. Financial evaluation is the process to decide the operating and financial features of a firm from financial statements and accounting. Financial performance of Maruti Suzuki India Limited has been focused by Liquidity analysis and leverage analysis (long term solvency analysis). Liquidity analysis effort the companies to meets its short term obligations. Leverage ratios measure the long-term solvency of a firm i.e. capacity to repay the principal amount when due; and the capability to pay the interest and dividend at the appointed time and periodically.

If you have travelled in India, taken a route to anywhere around this great nation, chances are you've driven with us. For over three decades now, Maruti Suzuki cars have been going places.

We started out in 1982 in Gurgaon, Haryana. Little did the then quiet suburb of New Delhi know that it was going to become the epicentre of the automobile revolution in India? The year marked the birth of the Maruti Suzuki factory. India turned out 40,000 cars every year. The new Maruti Suzuki 800 hit the streets to begin a whole new chapter in the Indian automobile industry.

The company set out with an obsession for customer delight, one that was unheard in the corridors of automobile manufacturers then. It was about a commitment to create value through innovation, quality, creativity, partnerships, openness and learning. It created a road that was going to lead the world in to a whole new direction, laid out by Maruti Suzuki. Today, Maruti

Suzuki alone makes 1.5 million family cars every year. That's one car every 12 seconds. We drove up head and shoulders above every major global auto company. Yet, our story was not just about making a mark. It was about revolutionary cars that delivered great performance, efficiency and environment friendliness with low cost of ownership. That's what we call true value. We built our story with a belief in small cars for a big future.

The story of the company encouraged millions of Indians to make driving a way of life. India stepped up with our vision to take on the fast lane. A comradeship had begun. Something incredible had begun. So, what drives us? Millions of Indians have put their faith in us. A team of over 13200 dedicated and passionate professionals that turned out 15 car models with over 150 variants. The drive is backed up by a nationwide service network spanning over 1500 cities and towns and a sales network that spreads across 1471 cities, 2 state of art factories, which together turn out 15 lakh cars annually. And a commitment to make Indian roads safer through a network of training infrastructure that imparts driving skills. Finally, the inspiration comes from one place – India's hopes, dreams and aspirations. The Maruti Suzuki journey has been nothing less than spectacular. But to be honest, we've only just begun.

One of the major industrial sectors in India is the automobile sector. Subsequent to the liberalization, the automobile sector has been aptly described as the sunrise sector of the Indian economy. This sector has witnessed tremendous growth during the last two decades. On the canvas of the Indian economy, automobile industry occupies a prominent place. Due to its deep forward and backward linkages with several key segments of the economy, automobile industry has a strong multiplier effect and is capable of being the driver of economic growth. The well-developed Indian automobile industry skilfully fulfils this catalytic role by producing a wide variety of vehicles- passenger vehicles, commercial vehicles, two wheelers and three wheelers. Automobile Industry was delicensed in July 1991 with the announcement of the New Industrial Policy. The passenger car industry was, however, delicensed in 1993. With the radial liberalization of the automobile sector since 1991, the number of manufacturing facilities in India has grown progressively. The economic contribution of the sector is significant. The industry contributes 22% of India's manufacturing GDP and 7% of India's overall GDP. It is one of the leading employment providers in the country and has helped create nearly 19 million jobs

through direct and indirect employment. The dominant products of the industry are two-wheelers with a market share of over 75% and passenger cars with a market share of about 16%. Commercial vehicles and three-wheelers share about 9% of the market between them. About 91% of the vehicles sold are used by households and only about 9% for commercial purposes. The major companies present in the automobiles market in India include Tata Motors Limited, Maruti Suzuki India Limited, Mahindra & Mahindra Limited, Ashok Leyland Limited, Hero MotoCorp Limited, Bajaj Auto Limited, Eicher Motors Limited and Force Motors Limited. Tata Motors is leading the commercial vehicle segment with a market share of about 58%. Maruti Suzuki is leading the passenger vehicle segment with a market share of 45%. Hyundai Motor India Limited and Mahindra and Mahindra are focusing expanding their footprint in the overseas market. Maruti Suzuki is leading automobile manufacturer and market leader in the car segment, both in terms of volume of vehicles sold and revenue earned. Maruti Suzuki offers a complete range of cars from entry level Maruti 800 and Alto, to hatchback Ritz, A-Star, Swift, Wagon-R, Estilo and sedans DeZire, SX4, in the 'C' segment Maruti Eeco, Multi-Purpose vehicle Ertiga and Sports Utility vehicle Grand Vitara. The country's largest carmaker Maruti Suzuki India consolidated its position in the passenger vehicles segment by increasing its share to 42% in a declining market during 2013-14. During FY14, Maruti's passenger vehicle sales grew marginally to 10,53,689 units from 10,51,046 units in 2012-13.

Historical Background

Before independence the Indian car market was considered as a market for imported vehicles. The earlier period was very tough for growth of Indian automobile sector due to strict licensing, restrictive trifling structure. The Indian automobile industry started to grow after 1970, but that growth was mainly driven by tractors, scooters and commercial vehicles. After 1980, the Indian automobile sector saw drastic but historical change. With an objective to modernize the Indian automobile Industry Maruti Udyog Limited was incorporated in February 1981. In October 1982 the company signed license and Joint venture agreement with Suzuki Motor Corporation of Japan. After collaboration, in December 1983, the company launched its most awaited Maruti 800. The company launched its multi-purpose vehicle; Omni in November 1984. The company

launched Gypsy in December 1985. In the year 1987, the company forayed into the foreign market by exporting first lot of 500 cars to Hungary.

In the year 1990 the company launched India's first sedan Maruti 1000 and Esteem in November 1994. In the year 1997 the company started Maruti Service Master as model workshop in India to look after sales service. In year 2000 the company launched a call centre. This was the first time a car company had ever launched a call centre in India. In September 2000 the company launched its highest selling model Alto. In the year 2002 the Maruti launched Maruti finance to offer financial services like extended warranty and finance for car insurance. In the year 2002, Suzuki Motor Corporation increased their stake in the company to 54.2 percent. The company launched its MPV Grand Vitara in April 2003. Maruti launched its most popular & successful hatch-back Swift in 2005. Maruti launched diesel version of Swift in January 2007 & in May 2007 the company launched its sedan SX4 in Indian automobile market. In July 2007 Maruti Udyog Limited renamed „Maruti Suzuki India Limited“. In March 2008, the company launched Swift Dezire and in November 2008 the company launched A-Star; equipped with K-series engine. In May 2010, Maruti Suzuki launched its stylish vehicle Ritz. In the year 2011, the company launched its luxury sedan Kizashi and with an objective to fulfil the needs of larger family size consumers, on 12 April 2012 the company launched its MPV Ertiga.

Profile of Maruti Udyog India Limited

Maruti Suzuki India Limited is a subsidiary of Suzuki Motor Corporation, Japan & India's leading passenger car manufacturer, accounting for nearly 45 percent of the total industry sales. Maruti Suzuki offers 16 brands with near about 150 variants. Maruti offers various brands which include Maruti 800, Alto 800, Alto K10, Estilo, Wagon-R, Omni, Eeco, A-Star, Ritz, Gypsy, Swift, Swift Dezire, SX4, Ertiga, Kizashi and Grand Vitara. The company is engaged in the business of Purchase, Manufacturing, and Sales of vehicles & spare parts. Maruti Suzuki is also engaged in other activities like Pre owned car sales, Car financing & Fleet management. Maruti Suzuki got various awards and accolades in its profile. It has ranked no.1 in JD Power Asia Pacific Customer Satisfaction Index (CSI) survey 2009 for ten times in a row. Maruti Suzuki got CNBC TV18 award 2011 for manufacturer of the year. Maruti Suzuki is the only Indian

company who has crossed the 10 million sales mark since its inception. The company has two manufacturing facilities in Manesar and Gurgaon, Haryana, India. The Gurgaon manufacturing plant has a manufacturing capacity of nine lakh units annually. According to Mr. R. C. Bhargava - Chairman, Maruti Suzuki India Limited, Maruti Suzuki India Limited finalized Rs.1700 crore investment for doubling the diesel engine capacity at Gurgaon Manufacturing Facility to 6,00,000 units by 2014. The Gurgaon plant also having K Series engine plant. Since inception of this plant, till date over 10 lakh K Series engine have been rolled out. Maruti Suzuki's Manesar manufacturing facilities have two fully integrated plants having capacity of 5.5 lakh units annually. Maruti Suzuki is also ahead in Social activities. As a responsible corporate citizen Maruti Suzuki introduced world class driving training facilities to India by launching Institute of Driving & Traffic Research. These include a specially formulated multilingual theory curriculum, scientifically laid-out driving tracks and advanced driving simulators that replicate Indian driving conditions. In 2008, Maruti Suzuki introduced National Road Safety Mission. Under this initiatives, the company took a commitment of training over 5,00,000 people in safe driving practice in a span of three years. Also with an objective to improve road safety and inculcate safe and systematic driving habits among people, Maruti Suzuki has opened Maruti Driving Training School (MDS). These driving schools are equipped with Practical Training and Attitude Training.

Manufacturing of Maruti Udyog India Limited

The company manufactures various models like Maruti 800, Alto 800, Alto K10, Omni, EECO, Wagon R, Estilo, Swift, Swift Dezire, Ritz, Gypsy, Ertiga, SX4, Kizashi & Grand Vitara. In this 28 years journey, Maruti Suzuki transformed itself from a successful public sector company to a renowned & listed Multinational company, sustained its leadership position and remained profitable despite tough competition. Maruti's parent Suzuki Motor Corporation played key role in inculcating quality and cost consciousness among employees, suppliers and in implementing Japanese manufacturing practices, Kaizen, 5S, QC, Suggestion schemes etc.

In the last decade, the production of automobiles in India has greatly increased. Due to increased production capacity, at present India is the largest tractor and three wheeler vehicle manufacturer, second largest two wheeler vehicle manufacturers, fourth largest commercial

vehicle manufacturer and eleventh largest passenger car manufacturer in the world. Presently several renowned automobile companies have expanded their manufacturing facilities owing to India's strong engineering base and expertise in the manufacturing of low cost, fuel efficient cars.

Maruti Suzuki India Limited has started its production in 1983 by introducing Maruti 800. Presently with two manufacturing facilities and a combined manufacturing capacity of one million cars a year, Maruti Suzuki produces over 1.2 million units annually. The manufacturing performance of Maruti Suzuki India Limited can be seen by following production milestones- · In August 1986 the company produced 1,00,000 vehicles.

- In March 1994, Maruti Suzuki produced 1 million cars.
- In December 1997, the company produced 2 million cars.
- In April 2003, the company produced 4 million cars.
- In April 2005, the company produced 5 million cars.
- In December 2006, Maruti Suzuki produced 6 million cars.
- In June 2009, Maruti Suzuki produced 8 million cars.

In the year 2009, Maruti Suzuki has surpassed its Japanese parent Suzuki Motor Corporation in overall production. During 2009, Maruti Suzuki rolled out 966,399 units, while Suzuki Motor Corporation produced only 908,302 cars. In March 2011, Maruti Suzuki India Limited rolled out its historic ten millionth car (1 crore) from its Gurgaon plant. Maruti Suzuki has planned to invest Rs.2,000 crore in diesel engine manufacturing facility at company's Gurgaon manufacturing plant to meet the growing demand of Swift and Dezire models.

After the meeting with Mr. Narendra Modi, the-Chief Minister, Gujarat, Maruti Suzuki India Limited very soon is going to set up its manufacturing unit in Gujarat with a capacity to produce 10 lakh cars per annum with provisions to produce 20 lakh cars per annum in the second phase.

The automobile sector is a significant contributor in national economy of any country and it is also an indicator of the living standard of the people of a country. Being a developing country,

there are a number of domestic and foreign automobile companies working in India. Maruti Suzuki is one of the leading companies of automobile sector, accounting for about 50 per cent of the total sales of the industry in 2012. The market share of Maruti Suzuki India Limited in passenger car segment in Domestic Market is about 37 per cent in 2014. The company has introduced a variety of brands of passenger cars to cater the needs of all segments of market. The company has received many awards and achievements through continuous innovations and technical know-how. The present study is an attempt to evaluate the financial performance of Maruti Suzuki India Limited which is one of the largest automobile sector companies in India. The financial performance has been evaluated by exploring the impact of Domestic and International Sales on Net Worth, Profit after Tax and Earning per Share of MSIL.

Maruti Suzuki India Limited is India's leading & largest Passenger car manufacturer which accounting for nearly 50 percent of the total industry sales. With a view to cater the demand of all types of customer the company has variety of brands in its basket i.e. ranging from the peoples car Maruti 800 to the stylish hatch-back Swift, SX4 Sedan and luxury sports utility vehicle (SUV) Grand Vitara. The company has received ample awards and achievements due to its continuous innovations and technological up gradations. The company today is very conscious about safeguarding the environment from vehicle pollution which resulted in launching of its advanced K-Series engines. Despite of stiff competition, Maruti Suzuki India Limited is presently considered as the leading automobile giant due to its remarkable Economic, Environmental & Social performances. The object of this paper is to evaluate the performance of Maruti Suzuki India Limited with respect to Export, Sales, Production and Sales Network.

Maruti Suzuki India Limited is India's leading & largest Passenger car manufacturer which accounting for nearly 50 percent of the total industry sales. With a view to cater the demand of all types of customer the company has variety of brands in its basket i.e. ranging from the peoples car Maruti 800 to the stylish hatch-back Swift, SX4 Sedan and luxury sports utility vehicle (SUV) Grand Vitara. The company has received ample awards and achievements due to its continuous innovations and technological up gradations. The company today is very conscious about safeguarding the environment from vehicle pollution which resulted in

launching of its advanced K-Series engines. Despite of stiff competition, Maruti Suzuki India Limited is presently considered as the leading automobile giant due to its remarkable Economic, Environmental & Social performances. The object of this paper is to evaluate the performance of Maruti Suzuki India Limited with respect to Export, Sales, Production and Sales Network.

Maruti Suzuki is India's leading giant in manufacturing passenger cars. It has been the leader in of the Indian car market for over two decades. It is largely credited for having brought in an automobile revolution to India. Since inception Maruti Suzuki is credited with having catalyzed and led the modernization of the passenger car segment of India. Presently Maruti Suzuki has occupied prominent it is the market leader in the Indian automobile industry both in terms of production and revenue generation. Presently, Maruti Suzuki India Limited is contributing to about 45 % of the total industry sales in India.

At the time of independence, the Indian car market was considered as a market for imported vehicles. The earlier period was very tough for growth of Indian automobile sector due to strict licensing and restrictive tariff structure. The Indian automobile industry started to grow after 1970, but that growth was mainly driven by tractors, scooters and commercial vehicles. After 1980, the Indian automobile sector saw drastic but historical change. In order to modernize the Indian automobile Industry, Maruti Udyog Limited was incorporated in February 1981. In October 1982 the company signed license and Joint venture agreement with Suzuki Motor Corporation of Japan. After collaboration, in December 1983, the company launched its most awaited Maruti 800. The company launched its multi-purpose vehicle; Omni in November 1984. The company launched Gypsy in December 1985. In the year 1987, the company forayed into the foreign market by exporting first lot of 500 cars to Hungary. In the year 1990 the company launched India's first sedan Maruti 1000 and Esteem in November 1994. In the year 1997 the company started Maruti Service Master as model workshop in India to look into after-sales service. In year 2000, the company launched a call centre. This was the first time a car company had ever launched a call centre in India. In September 2000 the company launched its highest selling model Alto. In the year 2002, Maruti launched Maruti finance to offer financial services like extended warranty and finance for car insurance. In 2002, Suzuki Motor Corporation

increased its stake in the company to 54.2 percent. The company launched its MPV Grand Vitara in April 2003. Maruti launched its most popular & successful hatch-back Swift in 2005. Maruti launched diesel version of Swift in January 2007 & in May 2007 the company launched its sedan SX4 in Indian automobile market. In July 2007 Maruti Udyog Limited was renamed Maruti Suzuki India Limited. In March 2008, the company launched Swift Dezire and in November 2008 the company launched A-Star; equipped with K-series engine. In May 2010, Maruti Suzuki launched its stylish vehicle Ritz. In the year 2011, the company launched its luxury sedan Kizashi and with an objective to fulfill the needs of larger family size consumers, on 12 April 2012 the company launched its MPV Ertiga. MSIL launched Wagon R Stingray a Hatchback car in 2013, and its latest Launching is Suzuki Ciaz a sedan car in 2014.

Sales Network

Maruti Suzuki has the largest sales and service network amongst car manufacturers in India. It had 802 sales outlets in 555 cities and 2740 service workshops in 1335 cities. The service network of the Maruti Suzuki includes Dealer workshops, Authorized service stations and Maruti service zones. The following pie chart clearly describes the sales network of Maruti Suzuki.

Maruti Suzuki India Limited (MSIL), formerly known as Maruti Udyog Limited, a subsidiary of Suzuki Motor Corporation of Japan, is India's largest passenger car company, accounting for over 50 per cent of the domestic car market. Maruti Udyog Limited was incorporated in 1981 under the provisions of Indian Companies Act 1956 and the government of India selected Suzuki Motor Corporation as the joint venture partner for the company. In 1982 a JV was signed between Government of India and Suzuki Motor Corporation. It was in 1983 that the India's first affordable car, Maruti 800, a 796 cc hatch back was launched as the company went into production in a record time of 13 month.

More than half the number of cars sold in India wears a Maruti Suzuki badge. They are a subsidiary of Suzuki Motor Corporation Japan. The company offer full range of cars– from entry level Maruti 800 & Alto to stylish hatchback Ritz, A star, Swift, Wagon R, Estilo and sedans DeZire, SX4 and Sports Utility vehicle Grand Vitara. Since inception, the company has produced and sold over 7.5 million vehicles in India and exported over 500,000 units to Europe and other countries. They were born as a government company, with Suzuki as a minor partner,

to make a people's car for middle class India. Over the years, its product range has widened, ownership has changed hands and the customer has evolved. What remains unchanged, then and now, is their mission to motorise India. MSIL's parent company, Suzuki Motor Corporation, has been a global leader in mini and compact cars for three decades. Suzuki's technical superiority lies in its ability to pack power and performance into a compact, lightweight engine that is clean and fuel efficient. The same characteristics make their cars extremely relevant to Indian customers and Indian conditions. Product quality, safety and cost consciousness are embedded into their manufacturing process, which they have inherited from their parent company.

Right from inception, Maruti brought to India, a very simple yet powerful Japanese philosophy 'smaller, fewer, lighter, shorter and neater. From the Japanese work culture they imbibed simple practices like an open office, a common uniform and common canteen for everyone from the Managing Director to the workman, daily morning exercise, and quality circle teams.

Maruti Suzuki exports entry level models across the globe to over 100 countries and the focus has been to identify new markets. Some important markets include Latin America, Africa and South East Asia. Interestingly with a brand new offering A-star, Maruti Suzuki is ready to take on European markets. Maruti Suzuki sold 53,024 units during 2007–08. This is the highest ever export volume in a year for the company, and marked a growth of 35 per cent over the previous year. Maruti Suzuki has exported over 552,000 units cumulatively with about 280,000 units to Europe and Israel. Maruti Suzuki has two state of the art manufacturing facilities in India. The first facility is at Gurgaon spread over 300 acres and the other facility is at Manesar, spread over 600 acres in North India. The Gurgaon facility Maruti Suzuki's facility in Gurgaon houses three fully integrated plants. While the three plants have a total installed capacity of 350,000 cars per year, several productivity improvements or shop floor Kaizens over the years have enabled the company to manufacture nearly 700,000 cars/ annum at the Gurgaon facilities.

Its Manesar facility has been made to suit Suzuki Motor Corporation (SMC) and Maruti Suzuki India Limited's (MSIL) global ambitions. The plant was inaugurated in February 2007. At present the plant rolls out World Strategic Models Swift, A-star & SX4 and DeZire. The plant has several in built systems and mechanisms. Diesel Engine Plant Suzuki Power train India

Limited Suzuki Power train India Limited the diesel engine plant at Manesar is SMC's & Maruti's first and perhaps the only plant designed to produce world class diesel engine and transmissions for cars. The plant is under a joint venture company, called Suzuki Power train India Limited (SPIL) in which SMC holds 70 per cent equity the rest is held by MSIL. This facility has an initial capacity to manufacture 100,000 diesel engines a year. This will be scaled up to 300,000 engines/annum by 2010. In 2012 senior management members were injured as workers resort to violence at Maruti Suzuki's Manesar plant.

Product range of the Maruti Suzuki India Limited

It offer full range of cars– from entry level Maruti 800 & Alto to stylish hatchback Ritz, A star, Swift, Wagon R, Estilo and sedans DeZire, SX4 and Sports Utility vehicle Grand Vitara.

- Maruti Alto 800
- Omni
- Gypsy
- Zen Estilo
- Wagon R
- Versa
- A– Star
- Ritz
- SX4
- Dezire
- Grand Vitara
- Ertiga
- Celerio

Milestones of Maruti Suzuki India Limited

2000	Maruti alto launched. First car company in India to launch call centre. IDTR launched jointly with the Delhi government to promote safe driving habits.
2001	Turn around with profits Rs104.5 crore. Four new business–True values, Insurance, Finance. Maruti Versa launched. Maruti True Value launched.
2002	Divestment –Suzuki Motor Corporation (SMC) acquires majority stake in MUL. Maruti Finance & Insurance launched.
2003	Maruti gets listed on BSE and NSE. IPO (issue oversubscribed 11.2 times) New Zen launched–first facelift by Maruti engineers.
2004	A new esteem launched –second successful facelift by Maruti engineers.
2005	MSIL was re–certified in 2005 as per ISO 14001:2004 standards.
2006	J.D. Power Survey award for the sixth year. MSIL has changed its EMS from ISO 14001:1996 version to ISO 14001:2004 version w.e.f.1st July
2007	Swift diesel launched. New car plant and the diesel engine facility commence operations during 2006–07 at Manesar, Haryana. SX4–Luxury Sedan Launched with the tag line “Men are black”. Maruti launches Grand Vitara.
2008	World Premiere of concept A–star at 9th Auto Expo, New Delhi.
2009	MSIL adopts voluntary fuel disclosure. First shipment of A–star leaves Mundra Port–Jan 10.A–star bags, Zigwheels” car of the year award” A–star rated best small car of the year–autocar –UTVi.
2010	Maruti Suzuki has been ranked India's most Trusted Brand in Automobile Sector by India's leading Business newspaper The Economic Times.

2011	On march 15, Maruti Suzuki India rolled out its 1 Crore (ten millionth) car. The historic 1 Crore car, a Metallic Breeze Blue coloured WagonR VXi (Chassis No 243899) rolled out from the Company's Gurgaon plant.
2011	Maruti Suzuki India unveiled its much awaited sportier and stylish car, the all new 'Swift'.
2012	India's favourite car Maruti Suzuki Alto crosses the 20 Lakh sales mark
2013	Maruti Suzuki introduces stylish Stingray
2014	Maruti Suzuki announces global debut of 'Celerio' with revolutionary Auto Gear Shift

Achievements/Recognition of MSIL

The company takes great pride in sharing that customers have rated Maruti Suzuki first once again in Customer Satisfaction Survey conducted by independent body, J.D. Power Asia Pacific. It is 9th time in a row.

- Maruti Suzuki wins 'Golden Peacock Eco–Innovation Award'
- Maruti Suzuki Ranks Highest in Automotive Customer Satisfaction in India for Ninth Consecutive Year.
- Maruti Suzuki becomes the first Indian car company to export half a million cars

Other Accolades of Maruti Udyog India Limited

During 2009–10, the company, its products and services received reputed awards and accolades instituted by independent expert groups, media houses and research agencies. These Include

- Rated as No. 1 in J D Power Sales Satisfaction Index
- Hatchback of the year – Ritz by Autocar
- Car of the year – Ritz by Business Motoring

- Manufacturer of the year by CNBC Overdrive
- Ranked third amongst global car companies in the World's Most Reputed Company Survey 2009
- National Award for Excellence in Corporate Governance by ICSI

Framework of Analysis

In this study, for interpreting the results modern financial analysis have been carried out which minutely evaluates and examine relevant components for companies smooth functioning 'like' Liquidity Analysis in which Current Ratio, Liquidity Ratio are tested, in Profitability Analysis in Relation to Sales G. P Ratio, N. P Ratio, O. P Ratio are tested and in Relation to Investment Return on Equity, Return on Assets, Return on Investment are tested, in Efficiency Analysis: Fixed Assets Turnover Ratio, Stock Turnover Ratio, Debtor Turnover Ratio are tested, in Leverage Analysis: Capital Gearing Ratio, Debt Equity Ratio, Interest Coverage Ratios are tested, in Market Value Analysis, Earnings Per Share, Price Earnings Ratio, Book Value Per Share are tested further, SD and CV, the Sum of Mean Values and Average score are calculated. After judicious evaluation of all performance parameters companies are ranked according to their performance. The outcome of the study depends on the selected period by the researchers which may differ from other analysis.

Ratio Analysis

The ratio analysis is most widely used tool in evaluation of financial performance. It is a technique of analysis and interpretation of financial position of a company. It is used as a device to analyze and interpret the financial health of enterprises (Sharma & Gupta, 2008). The object and utility of ratio analysis as a technique of financial appraisal is confined not only to the internal parties but also to the credit suppliers, bankers and lending institutions etc. Ratio analysis describes whether the firm's financial position is sound, the capital structure is in proper shape, the profitability is satisfactory, the credit policy in relation to sales and purchase is sound and the company is credit worthy or not. It highlights the liquidity, solvency, profitability and market position of a business concern (Sharma and Gupta, 1995). Ratio analysis lies in the process of computing, determining and presenting the relationship of items and groups of items

in a simple and understandable form. It points out whether the financial condition of the firm is very strong, good or partly good, questionable or poor. It is useful in assessment of the real financial condition of a concern so that a suitable remedial action can be taken. It helps in having a quick grasp of business situation and assists management in its basic tasks viz., forecasting, planning, coordinating, controlling and reporting (Agarwal, 2003).

Accounting and financial ratios have been used extensively by the Researchers to analyze the financial performance. Sheela and Karthikeyan (2012), used liquidity, profitability, assets utilization and growth efficiency ratios for analyzing the financial performance of Pharmaceutical Industry in India. Goswami and Sarkar (2011) made a study of financial performance of the Tata Steel by using profitability and liquidity ratios. The ratios which have been applied to highlight the efficiency of working capital management are current ratio, quick ratio, current assets to total assets ratio, current assets to sales ratio, working capital to turnover ratio, inventory turnover ratio, debtors' turnover ratio and cash turnover ratio. Bhunia et al (2011) analyzed the financial performance of two public sector drug and pharmaceutical enterprises. They measured liquidity, solvency, profitability and financial efficiency of both firms by applying accounting ratios. Ravichandran (n.d.) analyzed the financial statements of Sundaram Clyaton Ltd. The Researcher used different accounting ratios such as liquidity, leverage, activity, profitability, coverage ratios and DuPont Analysis. Jhala (2007), in her Ph.D. thesis analyzed the financial performance of refinery industry of India using different accounting ratios. The Researcher used around 22 accounting ratios and a table of correlation matrix showing the relationship among these ratios was made.

Liquidity Ratios

Liquidity ratios reveal the ability of a firm to meet its current obligations and indicate when they are due. The short term obligations are met by releasing amounts from current, floating or circulating assets. The sufficiency or insufficiency of current assets should be assessed by comparing them with short term liabilities. The bankers, suppliers of goods and other short term creditors are interested in the liquidity of the concern to measure the liquidity of a firm the following ratios can be calculated:

Current Ratio: It is a measure of general liquidity and is most widely used to make the analysis of short term financial position of a firm. A ratio equal or near to the rule of thumb of 2:1 is considered to be satisfactory. The formula of current ratio is:

$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$$

Quick Ratio: It measures the firm's capacity to pay off current obligations immediately. It is a more rigorous test of liquidity and as a convention a ratio of 1:1 is considered satisfactory. It is very useful to check the liquidity position of a firm. The formula of quick ratio:

$$\text{Quick Ratio} = \text{Liquid Assets} / \text{Current Liabilities}$$

Cash Position Ratio: It portrays a company's available cash and marketable securities against outstanding debt. It measures the company's ability to pay its short-term debts. A high ratio indicates a company with a low risk of default. Cash ratio is the most stringent and conservative amongst three liquidity ratios. It only looks at the company's most liquid short-term assets – cash and cash equivalents – which can be most easily used to pay off current obligations.

$$\text{Cash Position Ratio} = \text{Cash and Marketable Securities} / \text{Current Liabilities}$$

Profitability Ratios

The primary objective of a business is to earn profit. Profit earning is considered to be essential for the survival of the business. Profits are thus a useful measure of overall efficiency of a business firm. Profitability ratios reveal the earning position of a company. Generally, profitability ratios are calculated either in relation to sales or investments. Profitability ratios related to sales include Gross Profit Ratio and Net Profit Ratio while profitability ratios in terms of investment consists return on capital employed and return on net worth.

Gross Profit Ratio: It measures the relationship of gross profit to sales and is usually represented as percentage.

$$\text{Gross Profit Ratio} = \text{Gross Profit} / \text{Total Sales} * 100$$

Operating Ratio: The operating ratio can be used to determine the efficiency of a company's management by comparing operating expenses to net sales. It describes the relationship between

total operating expenses and sales of the company. Total operating expenses include cost of goods, administrative expenses, financial expenses and selling expenses. Smaller the ratio, greater the ability to generate profit. It is used to discuss the general profitability of the concern. A business concern is said to be efficient if it is able to keep up the cost of goods sold and other operating expenses as low as possible in relation to the net sales affected. This ratio shows the operational efficiency of the firm. Operating cost is equal to cost of goods sold plus operating expenses. Non-operating expenses such as interest charges, taxes etc., are excluded from the computations. This ratio is used to measure the operational efficiency of the management. It shows whether the cost component in the sales figure is within normal range. A low operating ratio means high net profit ratio i.e. more operating profit (Accounting for management, n.d.). Lower operating ratio shows the higher profit vice versa. This ratio is used to measure the operational efficiency of the management. It shows whether the cost component in the sales figure is within normal range. A low operating ratio means high net profit ratio i.e., more operating profit.

$$\text{Operating Ratio} = \text{Operating Cost} / \text{Net Sales} * 100$$

Where,

$$\text{Operating Cost} = \text{Cost of Goods Sold} + \text{Operating Expenses}$$

Net Profit Ratio: Net profit ratio indicates the efficiency of the management in manufacturing, selling, administrative and other activities of the firm. This ratio is the overall measures of firm's profitability and is calculated as:

$$\text{Net Profit Ratio} = \text{Net Profit} / \text{Total Sales} * 100$$

Return on Capital Employed: It is widely used to measure the overall profitability and efficiency of business. It helps in deciding future business policies for expansion and diversification. Capital employed equals a company's Equity plus Non-current liabilities or Total Assets less Current Liabilities, in other words all the long-term funds used by the company. ROCE indicates the efficiency and profitability of a company's capital investments. ROCE should always be higher than the rate at which the company borrows otherwise any increase in

borrowing will reduce shareholders' earnings, and vice versa; a good ROCE is one that is greater than the rate at which the company borrows.

$$\text{Return on Capital Employed} = \text{Profit after Tax} / \text{Capital Employed}$$

Return on Net Worth: It reveals the amount of return earned by investors on their investments. This return can be improved when a business buys back its own stock from investors or by using more debt and less equity to fund its operations. It measures how much return the company can generate for its equity shareholder's.

$$\text{Return on Net Worth} = \text{Net Income} / \text{Shareholder's Fund}$$

Solvency Ratios

Solvency ratios present the ability of a concern to meet its long term obligations. They indicate a firm's ability to meet its fixed interests along with the costs and repayment schedules associated with long term borrowings.

Debt Equity Ratio: It is computed to measure the related claims of outsiders and the owners against the firm's assets. It indicates the relationship between the external equities/outside's funds and the shareholder's funds. Thus,

$$\text{Debt Equity Ratio} = \text{Long Term Debt} / \text{Shareholder's Fund}$$

Interest Coverage Ratio: It indicates the number of times interest is covered by the profits available to pay the interest charges. Long term creditors are interested in knowing the firm's ability to pay interest on their borrowings.

$$\text{Interest Coverage Ratio} = \text{Net Profit before Interest and Tax} / \text{Interest Expenses}$$

Proprietary Ratio: Proprietary Ratio establishes the relationship between shareholder's funds to the total assets of the firm. It is an important ratio for determining long term solvency of the firm.

$$\text{Proprietary Ratio} = \text{Shareholder's Fund} / \text{Total Assets} \text{ (Pillai and Bagavathi, 2008)}$$

Profitability based on Investment:-

- Return on Investment
- Return on Equity

- Return on Assets

Efficiency or Activity Ratios: Efficiency or Activity Ratios are employed to evaluate the efficiency with which the firm manages and utilizes its assets. These ratios have been used under the study to know the efficiency of the companies under study:-

- Fixed Assets Turnover Ratio
- Stock Turnover Ratio
- Debtors Turnover Ratio
- Working Capital Turnover Ratio
- Sales Efficiency Ratio
- Assets Turnover Ratio

Leverage Ratios: Leverage Ratio is helpful in understanding the long-term financial position of the firm. These ratios have been used under the study to know the long term solvency position of the companies under study:-

- Capital Gearing Ratio
- Debt Equity Ratio
- Interest Coverage Ratio

Market Value Ratios: Market Value Ratios attempts to measure the economics status of the organization within the marketplace. Investors use these ratios to evaluate and monitor the progress of their investment. These ratios have been used under the study to know the market value of the companies under study:-

- Earnings per Share
- Price Earning Share
- Book Value per Share
- Economic Value Added (EVA)
- Market Value Added (MVA)
- Tobin's Q Ratio

Relevance of Statistical Tools

Descriptive Statistics: Descriptive statistics is the discipline of quantitatively describing the main features of a collection of information or the quantitative description itself. It provides simple summaries about the sample and about the observations that have been made. Descriptive statistics do not, however, allow us to make conclusions beyond the data we have analyzed or reach conclusions regarding any hypotheses we might have made. Descriptive statistics are very important because if raw data presented simply, it would be hard to visualize what the data was showing, especially if there was a lot of it. Descriptive statistics therefore enables us to present the data in a more meaningful way which allows simpler interpretation of the data.

Correlation: Correlation describes the relationship between the two variables. It is generally used to see whether the two variables are related or not. It is a statistical technique that can show whether and how strongly pairs of variables are related. It ranges from -1.0 to +1.0. The closer r is to +1 or -1, the more closely the two variables are related. If r is close to 0, it means there is no relationship between the variables. If r is positive, it means that as one variable gets larger the other gets larger. If r is negative it means that as one gets larger, the other gets smaller.

Regression Analysis: Regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modelling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables. More specifically, regression analysis helps one understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed. In regression analysis, it is also of interest to characterize the variation of the dependent variable around the regression function which can be described by a probability distribution. Regression analysis is also used to understand which among the independent variables are related to the dependent variable and to explore the forms of these relationships.

Altman's Z-score model

Z- Score analysis is a multi-discriminate analysis and was introduced by Edward Altman in 1968 to evaluate the general trend in the financial health of an enterprise over a period of time. This

model uses five financial ratios combined in a specific way to produce a single number called “Z score” which is considered as a measure of corporate financial health. The Z score is calculated by multiplying five accounting ratios, which are found to be efficient in predicting bankruptcy of a firm.

The following discriminate function is used to calculate Z score.

$$Z = 0.012X_1 + 0.014X_2 + 0.033X_3 + 0.006X_4 + 0.999X_5$$

Where Z= Discriminate function score of a firm

Ratio of Working capital to total assets

The ratio measures the relationship between working capital and total assets. Difference between current assets and current liabilities is known to be working capital that helps to identify the liquidity position of the firm.

$$X_1 = (\text{Working capital} / \text{Total assets}) * 100$$

Ratio of Retained earnings to total assets

The ratio indicates the degree of capitalization made through retained earnings in relation to total assets. Retained earnings include all free reserves and specific reserves and balance as per profit and loss account. The retained earnings to total assets (RE/TA) ratio measure the firm’s ability to accumulate earnings using its assets. A higher ratio signifies that the financial health of company is good.

$$X_2 = (\text{Retained earnings} / \text{Total assets}) * 100$$

Ratio of Earnings before interest and taxes to total assets

It is a measure of productivity of assets employed in an enterprise and is based on the profitability.

$$X_3 = (\text{Earnings before interest and taxes} / \text{Total assets}) * 100$$

Ratio of equity to debt

This measure shows how much assets of the enterprise can decline before the liabilities exceed the assets and the concern becomes insolvent.

$$X4 = (\text{Equity} / \text{Total debt}) * 100$$

Ratio of Sales to Total assets

The ratio of sales to total assets indicated the amount of sales generated. The ratio indicates the efficiency of the firm using its assets more productively.

Measurement the financial health

Altman had established the guidelines for classification of firms as either financially sound or bankrupt

Z Score	Zone	Interpretation
Above 3.00	"Safe" Zone	Implies that there is low probability of bankruptcy and the company is healthy
Between 1.8-2.99	"Grey" Zone	Implies that these firm are considered as cases which should be watched with attention
Below 1.81	"Distress" Zone	Implies that there is high probability of Bankruptcy of firms

Conclusion

The present study deals with the "Performance Evaluation of Maruti Udyog Ltd. Since 2000-01 (now Maruti Suzuki India Ltd.) At present, Maruti is the no. one car maker automobile manufacturing company in India and Hyundai takes place second position. Both the companies are competitors in this field so it is necessary to evaluate the financial performance of Maruti Suzuki India Ltd for the further improvement in their strategies. In this present era of Liberalization, Privatization and Globalization the Market has become globally competitive; hence the survival of an enterprise depends upon the efficiency and accuracy. Hence, it is necessary to evaluate the financial performance of Maruti Suzuki India Ltd to know where it

stands in the market and how it can improve further in the future by knowing their shortcomings. As the title indicates, this is an in-depth study of the evaluation of financial performance of Maruti Suzuki India Ltd. The purpose of this study is to explain the actual accounting information and make analysis through different accounting techniques. In the present study, the Researcher has discussed the Liquidity, Profitability, Efficiency and Leverage of both the companies to arrive at any conclusion. Apart from this, researcher has tried to evaluate the market value position of Maruti Suzuki India Ltd on the basis of some selected parameters. Every possible effort has been made to examine the financial performance of Maruti Suzuki India Ltd through various techniques of accounting. The review of literature, research gap, objectives and hypotheses will be discussed in the next chapter.

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First Chapter

Historical and Conceptual Background of the Study

- **Introduction**
- **Background of the Study**
- **Maruti Udyog India Limited: An Overview**
 - **Historical Background**
 - **Manufacturing of Maruti Udyog India Limited**
 - **Product range of the Maruti Udyog India Limited**
 - **Business Products and Performance**
 - **Milestones of Maruti Udyog India Limited**
 - **Achievements/Recognition of MUL**
 - **Other Accolades of Maruti Udyog India Limited**
 - **Modern Tools and Techniques**
 - **Liquidity Ratio**
 - **Profitability Ratio**
 - **Efficiency or Activity**
- **Conclusion**
- **References**

Second Chapter

Review of Literature

- **Introduction**
- **Statement of Problem**
- **Review of Literature**
- **Research Gap**
- **Objectives of the Study**
- **Hypotheses of the Study**
- **Nature of Data**
- **Sources of Data**
- **Significance of the Study**
- **Tenure of the Study**
- **Variables used in the Study**
- **Tools and Techniques used in the Study**
- **Limitations of the Study**
- **Conclusion**
- **References**

Introduction

In the previous chapter the researcher dealt with the historical and conceptual background of the study. The present chapter provide the detailed research design including Review of literatures, objectives, hypotheses, research methodology and significance of the study which will be helpful in order to evaluate the financial performance of MUL from 2000-01 to 2010-11. Research is a systematic and scientific search for relevant information on a specific subject, the process used to collect information and data for the purpose of decisions, systematic inquiry that investigates hypothesis, suggests new interpretations of data and poses new questions for future research to explore. In short, research means a detailed study of a subject, especially in order to discover new information or reach new understanding information and facts for the advancement of knowledge. Research methodology term is usually considered to include research design, data gathering and data analysis. A research methodology or a research design involves specific techniques that are adopted in research process to collect, assemble and evaluate data. The present study focuses on the financial performance of selected companies of Indian Automobile Industry for the period 2000-01 to 2010-11 with the help of Ratio Analysis, Analysis of Variance (ANOVA) and Trend Analysis. This chapter deals with the stepwise procedure followed in order to carry out the present research work.

The researcher has gone through the various theses, research papers, working papers, studies and articles that have provided the theoretical foundation of this thesis. The researcher equally introduces the different intricacies about the research and provided some of the basics and perspectives of this research thesis.

The Automobile industry plays a very vital role in the Indian Economic. Its connections with various other sectors of the economy make it an important component of the economy. Infrastructural development of a nation comprises of urban development, rural development and industrial development, but the hidden requirement of infrastructure is the connectivity between various regions, which is fulfilled by the automobile industry.

The Auto industry plays a significant role in shaping a country's economy and development. The manufactures of heavy commercial vehicle had given rise to a new era in the Indian history. Slowly many firms started setting up various small manufacturing units in India.

Therefore, it is assumed that in the factor which are obstruction the liquidity vis-à-vis profitability position of car units could manage properly then units would come out with a better working result. This study based on the secondary data derived from annual published reports of selected car companies or computer data.

Thus, this study would be an original contribution to the problem of the study in unique every respect.

Statement of Problems

In India, automotive is one of the largest industries showing impressive growth over the years and has been significantly making increasing contribution to overall industrial development in the country. However, during the last years the Industry has achieved substantial progress. Financial soundness of business enterprise largely depending upon the profitability can be achieved after control over the cost of production like cost of raw material consumed. Excise duty power and fuel cost, interest burden, administrative expense, selling and distribution expense etc. In recent years, cost of almost all elements of production like cost of raw material consumed, wages cost, excise duty, power and fuel cost, interest burden, administrative expenses, selling and distribution expenses etc. have been increased heavily. It is also making effect on cost of production and financial position. Other problem is Tax and duty structure and differential taxation system. These problems also effect directly or indirectly on cost of production. Financial performance of business enterprise largely depends upon the profitability, proper mix of capital structure, resources used by different activity and efficient management of working capital of the business enterprise. Through financial performance analysis company can get information regarding liquidity, profitability, operating efficiency and also funds

management. Thus, financial analysis has become a basic and broad aspect of judging the performance of a corporate entity. Different analysts always make analysis or study of financial performance knowingly, generally, external analyst's analysis the information as per their requirements. Investor is interested in the financial and liquidity position. A shareholder is interested in the profitability. Management is interested in the operational efficiency. Thus various stakeholder of business enterprise like management, investors, financial institutions, creditors, employees, government, economist, prospective investor's etc., look at liquidity, profitability and efficiency of the business concern. Since opening up of the sector to FDI in 1991-92 the Automobile industry is become one of the important industries of the economy. It has close linkages with the other part of the economy and with the strong multiplying effect. Therefore, the present research is undertaken to study the financial performance of one of the largest automobile company of the Indian automobile industry. The performance of Indian Automobile Industry is analyzed on the basis of profitability analysis, financial structure, and assessment of financial health. The problem of the present study is a study of financial performance of Maruti Suzuki Ltd since 2000-2001.

In the fast changing economic scenario world over, the management of any company has to play a dynamic role in managing its finances. To make rational decisions in tune with the objectives of the firm, the management must analyze the funds needs, the financial status and profitability and the business risk of the company (Van Horne 2000).

As there is an increasing competition from other global players, the management has to initiate appropriate steps to lower the cost of production and generation of additional revenues through cost competitiveness. For this purpose, certain production areas have been identified for cost reduction. The management can aim at increasing the profit through the following methods:

- Optimization of the product mix with a view to enhance the sales revenue and thus, the profitability of the company.

- Increased production of value added products.
- Continuous reduction of inventory levels of spare and raw materials.
- Implementation of expansion plans as per the fixed schedule with an eye on capturing the expanding market.
- Creating good reputation in customers by providing adequate sales network and enhancing after sales services.

In the light of the above, proper analysis of the financial statements of the company is necessary to assess the financial health of the company, as it provides valuable insights into its financial performance. Financial appraisal provides a method for accessing the financial strengths and weakness of a company. There are two views of the financial strength of every organization based on the period of lending i.e., the short term and long term. Short term financial strength relates to the technical solvency of an organization in the near future, while the long term financial strength depends on the structure that has been imposed in financing more permanent asset requirements.

To analyze the financial strength of Indian Automobile Industry we chose the topic of research study as “Evaluation of financial Performance of Maruti Suzuki Ltd since 2000-2001” by using appropriate financial appraisal techniques as well as comparing the financial strength thereof.

Review of Literature

Many of the studies already been done and evaluate the financial position of the company with the help of various ratios but no research thesis is considered complete unless a widespread literature review is done by the researcher. One of the basic purposes of doing this exercise is to find the research gap.

Financial ratios are important indicators of the company's health and are widely used by the investors and financial analysts to evaluate companies' financial conditions. With

passing time various types of ratios have been developed and used by the scholars and financial economists to analyze data and extract useful information for their decision making. However, most of these ratios are developed and devised by the developed and developing countries financial economists and are used efficiently to make a comparative study of the financial statement of an industry including automobile sector. It is been found that very few ratios are developed in developing and underdeveloped nation and very few comparative analyses have been done on automobile industry. It is also found that the studies carried out in Indian sub continent also lag behind in justifying the authenticity and validity of financial ratio especially in automobile sector and thus invite study to reveal the truth and to set a trend for future. Therefore, keeping futuristic development in view this study is humble initiative and is designed to investigate financial ratios minutely which are relevantly required in automobile industry. In particular study will examine and justify the differences in financial ratios between the two segments. The outcome of the study will provide insights regarding financial characteristics of companies to financial information users in the two segments of the automobile industry and will also explore new dimensions and will set new parameters to be followed by others.

Tariq Zafa et al (2012) had compared the financial performance and market value of Maruti with Tata motors taking into consideration the profitability, efficiency, liquidity and book value.

The analysis had provided an evidence of best performance to Maruti Suzuki Ltd. Santhiyavalli et al (2012) had measured the financial health of select paint companies in India through the application of Z-score model. The analysis reveals that all the four selected companies are in too healthy zone as the Z scores of the selected companies are above 3.00 which indicate the company's financial soundness and efficiency without any risk of fall. Amalendu Bhunia (2011) had conducted a study on the financial performance of select pharmaceutical enterprises for the period of twelve years. Accounting ratios and statistical tools were used to find the trend in performance and it was concluded that the

financial position of KAPC was stronger than the other select firms. Subapriya Ray (2005) examined the performance of Indian automobile industry with the financial indicators- sales, production and export trend. The result reveals that automobile industry has been through turbulent phases characterized by low utilization of assets and huge liquidity crunch which could be overcome with help of labour flexibility.

Historically, many studies have been carried out to compare the financial characteristics of automobile sector and different groups of organizations. Most notable are, Mecimore (1968) in his study by using descriptive statistical measures observes cross-sectional non-normality and positive skewness for twenty ratios in a sample of randomly selected forty-four Fortune-500 firms, Deakin (1976) in his study using chi-square rejected the normality of eleven ratios. He observed that there are less extreme deviations from normality after applying square root and logarithmic transformations; he also found that normality was not supported as it should be, Bougen and Drury (1980) in their study suggested non normality based on cross section of 700 UK firms. The results projecting non- normality of financial ratio distributions have invoked researchers to find or develop systematic method of restoring normality to warrant standard parametric statistical analyses, Chen and Shimerda (1981) in their study noted that there are 41 different financial ratios which were earlier used sufficiently in Historically, many studies have been carried out to compare the financial characteristics of automobile sector and different groups of organizations. Most notable are, Mecimore (1968) in his study by using descriptive statistical measures observes cross-sectional non-normality and positive skewness for twenty ratios in a sample of randomly selected forty-four Fortune-500 firms, Deakin (1976) in his study using chi-square rejected the normality of eleven ratios. He observed that there are less extreme deviations from normality after applying square root and logarithmic transformations; he also found that normality was not supported as it should be, Bougen and Drury (1980) in their study suggested non normality based on cross section of 700 UK firms. The results projecting non- normality of financial ratio distributions have invoked researchers to find or develop systematic

method of restoring normality to warrant standard parametric statistical analyses, Chen and Shimerda (1981) in their study noted that there are 41 different financial ratios which were earlier used sufficiently in studies and conclude that it is difficult to select ratio with the approximate and absolute factors loading as the representative financial ratio for the observed factors, Schmidgall (1989) in his study boldly stated that financial ratios are the most meaningful information in financial statements to automobile executives and managers, Virtanen and Yli-Olli (1989) in their study tested the temporal behavior of financial ratio distributions and found that business cycle affects the cross sectional financial ratio distributions, Tippet (1990) in his study examined models financial ratio in terms of stochastic processes and revealed that in general inference normality will be the exception rather than the rule, Andrew and Schmidgall (1993) in their study classified financial ratios into five categories “liquidity ratios, solvency ratios, activity ratios, profitability ratios, and operating ratios”. They indicated that financial ratios themselves do not provide valuable information about a firm’s performance, Andrew (1993) in his study conducted on automobile industry investigated the leverage ratio of companies and suggested that a value-maximizing capital structure, Hitchings (1999), in his study realized that ratio analysis is a sensitive and valuable tool in credit assessment which is to forecast the ability of a borrower to meet its debt obligations, Zopounidis (2000) in his study proposed methodological framework based on financial ratio analyses for estimating small and medium size enterprises performance, Hsieh and Wang (2001) in their study examined and stressed the need of selecting relevant financial ratios for the purpose of analysis. They proposed new approach for finding useful financial ratio and also emphasized that industry differs in product, in size and have its own unique business practices and internal and external environment thus financial ratio analysis should be according to industry which suit it the most, Dr. Suman C. Jain (2002) in his study examined the performance of automobile industry. He used composite index approach to analyze the operational efficiency and profitability and suggested to strengthening the soundness, profitability improvisation, working capital and in the performance of fixed assets, Harrison (2003) conducted study and argued that financial ratio analyses are very

useful. During his study he found that financial ratios analysis are also effective in automobile industry, it guide governing body to determine effective and efficient strategies and identify the weak areas which need attention, Ben McClure (2004) revealed that each industry has differences in terms of its customer base, market share among firms, industry wide growth, competition, regulation and business cycles, You-Shyang Chen (2007) study explains the forecasts revenue growth rate (RGR) of firms in stock trading systems using rough set theory. It is a very important instrument for investors that correctly predict future growing firms from data of fundamental analysis in trading systems; Dr S.M.Tariq Zafar (2009) in his study examined automobile industry and concluded that industry is in upward swing and will grow with decent pace and recommended that fundamental of industry have to be truly adjudicated in order to consolidate investors sentiment for long run.

P. Krishnaveni in her article focuses on historical developments, financial analysis and various brands of Maruti Suzuki. The article highlighted the performance of Maruti Suzuki with respect to Production, Manufacturing and Exports of company. The article also describes the various innovations of the company for e.g introduction of Electronic power steering, introduction of superior quality of 16*4 hypertech engines.

R.C.Bhargava, Seetha in their book, *The Maruti Story*, focuses on the journey & developments of Maruti Udyog Limited. Mr.Bhargava in his book pointed that Maruti Udyog established new standards of quality, productivity, industrial relations and customer care in the Indian automobile industry and the manufacturing sector at large. He also mentioned that Maruti Suzuki not only dominate the Indian car market within a short period of time but also showed that India could manufacture and export a sophisticated product to all demanding markets of western Europe. He also emphasized that Maruti Suzuki is rapidly building research & design capabilities so that in a few years small cars can be designed and engineered in India. He also mentioned that Maruti have adopted the marketing and sales policies based on the Japanese experience but modified to suit Indian conditions.

Maruti Udyog Limited in their Sustainability Report 2009-10, focuses on its Give, Get & Grow mantra. This report speaks about Economic, Environmental & Social performance of Maruti Udyog limited. Mr. R. C. Bhargava-Chairman, Maruti Udyog Limited, in this report stated that, the sustained growth achieved by Maruti Suzuki over its 26 year journey is the result of stakeholder centric policies adopted from their formative years, which have also kept in view the interests of society and the company's ability to respond to the changing market requirements. Mr. Bhargava also opined that recognizing the importance & necessity of clean and cost effective fuel options, Maruti Suzuki embarked on a journey to develop alternate fuel vehicles and out of the alternative fuel options, CNG seems to be the most suitable option for India.

There is a wide range of literature available on financial performance analysis of different companies in conforming to its dynamic value and significance of intuitive nature. A good dealing in analytical part of literature exists at broad levels like size and technology, problem Associated with profitability productivity, financial performance, and capacity utilization. Relevant existing literature and studied have been clipped below. A researcher has studied of this literature for gaining insight into the problem. P. Krishnaveni in her article focuses on historical developments, financial analysis and various brands of Maruti Suzuki. The article highlighted the performance of Maruti Suzuki with respect to Production, Manufacturing and Exports of company. The article also describes the various innovations of the company for e.g introduction of Electronic power steering, introduction of superior quality of 16*4 hypertechnology engines.

Bhunia et al (2011) analyzed the financial performance of Indian public sector pharmaceutical enterprises by properly establishing relationships between the items of the balance sheet and profit & loss account. They measured the firm's liquidity, solvency, profitability, stability and other indicators that the business is conducted in a rational and normal way; ensuring enough returns to the shareholders to maintain at least its market value. In order to evaluate the financial performance they applied multiple regression analysis to derive meaningful inferences. Rana et al (2013), evaluated the financial

performance of Maruti Udyog Limited from 2005-06 to 2011-12. The study is analytical in nature and presents the sales, profit after and exports of Maruti Udyog Limited. All the analysis is being done with the help of graphs. P. Krishnaveni in her article focuses on historical developments, financial analysis and various brands of Maruti Suzuki. The article highlighted the performance of Maruti Suzuki with respect to Production, Manufacturing and Exports of company. The article also describes the various innovations of the company e.g. introduction of Electronic power steering, introduction of superior quality hypertech engines.

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The most important pioneering books were written by PODDAR in 1962 and 1966 respectively, in which an attempt has been made to enumerate all the historical facts regarding various aspects of Automobile Industries. Some institutions like C.M.A. association of Trade and Industry, Tariff Commission, Commerce Research Bureau,

Economics Times, National Productivity Council etc. have made attempts to study the general problems in historical perspectives.

CHAKRAVARTY AND REDDY had written an article on the financial performance of Automobile Industries for period from 1967 to 1971 by making comparison in 1973. They used ratio analysis as major tool for financial performance and had studied 22 ratios of profitability, proprietary, liquidity and turnover groups.

KAURA AND SUBRAMANIAM published an article on the financial performance of Automobile Industries relating to the period from 1972 to 1979 which mainly observed liquidity, profitability, financial structure and overall performance. For this study they used conventional ratio analysis and merit rating approach. They found that the financial strength of the units have declined over the years.

RAO AND CHANDAR... have made attempt to assess the financial efficiency of Automobile Industries for the period from 1970-71 to 1977-78 which covers 70% of entire industry. They found out that the profitability of selected companies had decreased continuously from 1970-71 to 1974-75 owing to causes such as inflationary pressure in the country, continuous fall in capacity utilization due to drastic power-cuts and shortage of coal, oil and wagon. The profitability increased in 1975-76 because of appreciable increase in the sales.

DR. S. J. PARMAR Published a book in 2001. The book is a systematic study of the modern financial measurement techniques useful for management in planning and controlling Automobile Industries. With increasing participation by the general public and financial institution as present and corporate bodies have to be on their guard and manage their efficient financial efficiency in the area of globalization. This book covers topics of concept and measurement of profitability, cost & sales trend, profit margin, assets turnover, analysis of return on investment common size of value added statements.

BUTALAL C. AJMERA has done his dissertation “interpretation and analysis of financial statement of two selected units of Automobile Industries”, in the year 2001 by using conceptual framework of financial statement, Research plan, profile of the cement industry. Birla group of companies a bird eye view, liquidity position, financial structure and suggestion, the period of 1994-95 to 1998-99. The study reveals the course of profitability.

DR. MISS KAILASH P. DAMOR has done research on “A comparative analysis of profitability trends in Maruti Udyog” in the year 2002. In her research she has given clear idea about profit and profitability. Profit means; “it is an excess of Income over expenses.” Profitability means “it is a capacity of earning profit.” Profitability is related with two words, Profit and Ability. We discuss the word profit in many senses but the word profit is used as per its purpose, where as the ability shows the capability of earning profit from business. Profitability also shows our capacity of how much return we can give to our investors on their investment.

DR. SANJAY BHAYANI Published a book in 2003 “Practical Financial Statement Analysis of Maruti Udyog Ltd.”. The study covered 16 public limited cement companies in private sector. He made study of analysis of profitability, working capital, Capital structure and activity of Indian Automobile industry. In his research he revealed various problems of Automobile Industries and suggested remedied for the problem. He also suggested for the improvement of profitability and techniques of cost control.

DR. RASIK N. BAVARIA has completed his research on “A comparative analysis of profitability vis-à-vis Liquidity performance in Automobile industry of India” in the year 2004. He has given importance of profitability and liquidity; by the term ‘Liquidity’ is meant the debt- repaying capacity of an undertaking. It refers to the firm’s ability to meet the claims of suppliers of goods services and capital. Study of financial statement analysis is always made objectively. Generally, the external analyst uses the information as per his requirements. Financier would like to know profitability. Management would

be interested in the operational efficiency and profitability. Position of the management profitability vis-à-vis liquidity should also balance in the portfolio. But if the management likes profitability, liquidity becomes less and if the liquidity is liked more the profitability gets less, for a short period of time. In the long run both will go together.

DR. HARISH P. DESAI He has done his Ph.D. on “Financial performance appraisal of selected Automobile companies” in May 2006. Under this study he has made a modest attempt in assessing the financial health of the selected Automobile companies by applying accounting tools and techniques of the date of Automobile companies in Gujarat State. For his purpose he has used many accounting tools and techniques like common size statement, Ratio analysis, etc. He has also used some statistical techniques like, mean, Regression, F-test, T-test, Diagrammatic and graphic presentation of data.

DR. DEEPAK M. SHARMA Here, the researcher has done his research work on Indian Automobile Sectors. He has calculated the profitability and productivity of various Automobile companies. The title of his thesis is “Critical Evolution of Indian Automobile sector.” [With reference to private sector Automobile companies & Public sector Automobile companies] for purpose of final in the profitability the researcher has used the analysis of common size Financial Statement.

DR. SHIVUBHAI C. VALA he has done his Ph.D. on “A comparative study of profitability vis-a-vis liquidity of Maruti and Tata Automobile companies” in February – 2011. Under this study he has given clear idea and importance of profitability and liquidity. By the term liquidity is meant the debt – repaying capacity of an undertaking. It refers to the firm’s ability to meet the claims of suppliers of goods services and capital. For this purpose he has used many accounting tools and techniques like common size statement, Ratio analysis etc. He has also used some statistical techniques like mean, regression, F-test, T-test, Diagrammatic and graphic presentation of data.

DR. KANAK N. ATKOTIA “Analysis of Profitability performance of Automobile companies in India” - thesis submitted by Kanak N. Atkotia. In it, conceptual framework of financial performance, profile of the tea industry in India, analysis of profitability, financial structure, working capital and analysis of activity is included and also suggestions are given.

DR. KRIPAL SING has written a book on “Automobile Engineering”. This book keep emphasizes on the fundamental aspect like the wheels, types, external and internal parts of automobile. Author has narrated the functioning process of the automobile in very easy language.

The research paper presented in International Journal of Research in Commerce and Management on “Comparative Financial Performance Evaluation of Maruti and Hyundai” by Prof (Dr.) S. C. Chitkara in this paper, ratio analysis is used mainly. Statistical techniques like average, S.D. and cov. are used to draw conclusion.

A book has been written by C. R. Kothari on ‘Research methodology’ in which the statistical techniques related to data analysis explained very well. This book is special about the qualitative techniques of the research.

Rao (1985) in his work entitled Impact of Debt-Equity Ratio on Profitability-An Exploratory Study of Automobile companies, observes if the earning ability i.e., profitability, has any impact on the debt-equity ratio in engineering companies. The study based on the impact of profitability on the debt-equity ratio has revealed a negative association i.e., high debt-equity ratios meant low profitability due to large interest payments, whereas low debt-equity ratio caused high profitability because of low interest payments. Thus, profits are necessary to run the firm in a healthy atmosphere of present day cut throat competitions and defend it from business rivalry.

Deepak Chawola (1986) studied an evaluation of profitability of the Indian Automobile industry. The study examines the trends in the profitability of the Indian

Automobile industry and the relevant data has been extracted from 17 different firms found in BSE Official Directory for the period 1963-64 to 1977-78. An increase in the excise duty of man-made fibres seems to be associated with the decline in profitability of the industry.

Nagarajan and Burthwal (1990) studied the profitability and structure of a firm level study of Indian Automobile industry. Further they examined the relationship between profitability and structure using a sample of 4 Indian Automobile industry in India for the period 1970-1982. Two measures of profitability i.e., ratio of net profit to total sales revenue and the ratio of net profits to total assets have been used to find out the determination of profitability. Size and advertising intensity did not appear to be major determinants. The coefficient of growth rate of sales was positive and significant, suggesting that factors on the demand side of a firm had a greater impact on profitability than on the supply side.

Canyon and Machin (1991), made an attempt to find the causes of inter-industry variations in profit margins for 90 U.K. Indian Automobile industries over the period 1983 to 1986. Labour-market characteristics such as trade union coverage and unemployment, import intensity, concentration and capital stock were taken as independent variables. The study concluded that the union coverage and unemployment had a negative impact on profit margins.

Krishnaveni (1999) measured the impact of policy changes on profitability and growth of firms in the Indian Automobile industry since 1992-02 using Tobin's q as a technique of profitability. The study revealed that there was no evidence to show that firms have made supernormal profits. Profitability is found to be explained mainly by age of the firm, vertical integration, diversification and industry policy. Important determinants of the growth of firms are found as diversification, industry policy dummy variable, gross retained profits and expansion of capacities. Results also reveal

differences in performance between car and non-car sectors as well as within the sectors of the industry.

Cleveland and Frederick (1993) examined the connections between variations in profit and loss rates among firms in Indian Automobile industry as reflections of uncertainty. The study concluded that within industries, such variations are particularly great for firms in Indian Automobile industry classes, leading to operating policies for small firms best characterized as entrepreneurial. Large firms, faced with less uncertainty in earning profit, appear to adopt policies that manifest an emphasis on strategic planning.

Sidhu and Gurpreet Bhatia (1998) studied the different factors which may affect profitability of Indian Automobile industry of India. It was an attempt to identify the major determinants of profitability in Indian Automobile industry with the help of empirical data taken from Bombay Stock Exchange Directory for the year 1999. The study revealed that there was no clear-cut relationship found between current profitability and capital intensity. The age of the firm was having generally negative but statistically insignificant relationship with current profitability.

Kuldip Kaur (1999) studied different aspect of performance and profitability of firms in Indian Automobile industry. The study had various facets taken from the 5 different firms of India has been undertaken, covering the period from 1990 to 1999. Growth pattern of the firms showed that majority of the firm is recorded growth rate ranging from 10 to 20 per cent. Two measures of profitability have been used in the study i.e. operating profit as percentage of net sale and second measure is the profitability rate i.e. gross profit as percentage of net sales. Therefore, the analysis in case of Indian firms showed that there was no systematic tendency for average profitability to increase/decrease as the size of the firm changed.

Amit Mallick and Debasish Siir (1998) studied the relation of working capital and profitability: a case study in interrelation. It explores the correlation between ROI and

several ratios relating to working capital management. It was an effort has been made to make an empirical study of Indian for assessing the impact of working capital on profitability by computing simple correlation co-efficient between ROI and each of some selected important ratios relating to working capital management and to test the significance of such coefficients. The study was concerned on the selected ratios of working capital management. Further, the profitability of the company revealed both negative and positive association Simon Feeny and Mark Rogers (1998) examined the profitability in Australian Enterprises analyses profitability as a sample of large Australian Automobile industry over the period 1985 to 1996. Different measures of profitability are used and the study provides a discussion of the theoretical basis for these measures. The key issues investigated are a comparison of the profitability measures, the distribution of profitability between firms, and the persistence of firm profitability.

Jagan Mohan Rao (1993) appraised the financial performance of Indian Automotive Tyre Industry and examined the different financial variables of Indian automotive tyre industry. The research was intended to probe into the financial condition-financial strength and weakness-of the Indian tyre industry. It was an attempt to measure the financial performance through inter-company and inter-sectoral analysis over a period of time (1981-1988). The main findings were that fixed assets utilisation in many of the tyre undertakings was not as productive as expected and inventory and it was managed fairly well. The tyre industry's overall earning capacity was subjected to inconsistency and ineffectiveness.

Kallu Rao (1993) studied the intercompany financial performance evaluation of Indian Automobile industry on retrospect and prospect. The author made an attempt to analyse the important variables of tea industry and projected future trends regarding sales and profit for the next 10 year periods, with a view to help the policy makers to take appropriate decisions. Different financial ratios have been applied in order to analyze the financial health of the industry. The forecast of sales and profits of tea manufacturing companies shows that the Indian Automobile industry has bright prospects. The recent

changes in the Indian economic policies will boost up the foreign exchange earnings, which will benefit those companies, which are exporting to hard currency areas.

Chandrasekaran (2009) in determinants of profitability in Indian Automobile industry: A Case study of Tata Motors has studied the determinants of profitability in cement industry. The main purpose of the study was to examine determinants of profitability in Indian Automobile industry: A Case study of Tata Motors. The study drew inference on impact of policy measures which led to change in price and distribution policies relevant for Tata Motors. Determinants of profitability are analysed using the technique of ordinary least squares. It was based on existing theories and relevant econometric empirical works. The study concluded that efficiency in inventory management and efficient management of current assets were important to improve profitability.

Pai, Vadivel and Kamala (1995) examined the diversified companies and financial performance: A study. It was an effort which was made to study the relationship between diversified firms and their financial performance. There were seven large firms having different products-both related and otherwise-in their portfolio and operating in diverse industries has taken into consideration. Different accounting and financial ratios were used to determine the level of financial performance. The study concluded that the diversified firms studied have been healthy financial performance. Therefore, variation in performance from one firm to another has been observed and statistically established. In RBI study (1995) an attempt was made to study the financial performance of private corporate business sector during the period 1994-95 of the 1030 companies covered in this study, 925 are non-financial companies and 105 are financial companies. The results of the non-financial and financial companies are also analyzed size-wise apart from the analysis of the consolidated results for the entire sector.

Vijayakumar (1995) measured the determinants of corporate size, growth and profitability the Indian experience. In order to meet the objectives of the study, Indian

public sector industries were selected. The data relating to size, growth and profitability were collected from their annual reports published by the Bureau of Public Enterprises (BPE), Government of India. The study has conducted from the period from 1980-81 to 1995-96. The tools are considered for the study are average, correlation and linear and multiple regression analysis. Inter industry analysis indicated that the growth is positively and significantly associated with the size in all the industry groups except textiles.

Rajeswari (2000) studied the Liquidity Management of Indian Automobile industry: A Case study of Tata Motors. It can be concluded from the analysis; the liquidity position of Tata Motors is not stable. There was too much liquidity found in the first two years of the study period. A very high degree of liquidity is also bad as idle assets earn nothing and affects profitability. It may be concluded that the liquidity management of Tata Motors is poor and is not up to the mark.

Aggarwal and Singla (2001) used Multiple Discriminant Analysis (MDA) in order to evaluate the financial performance. They made an attempt to identify 11 ratios used as inputs which are relevant in distinguish between profit making units and loss making units in Indian paper industry. The study also shows that inventory turnover ratio, interest coverage ratio, net profit to total assets and earnings per share are the most important indicators of financial performance. The study also suggests that the results of MDA can be used as predictor of future profitability.

Dabasish Sur (2001) studied the liquidity management of four companies in Indian automobile Sector. A comparative analysis has made with regard to the liquidity management in automobile Sector has been made for the period 1995 to 2005. The study concluded that the overall liquidity should be managed in such a way that not only it should not hamper profitability but also its contribution towards increase in profitability should be positive.

Debashish Rei and Debashish Sur (2001) measured the profitability of Indian Automobile industry with special reference to Maruti Udyog Ltd. The study attempts to

measure the profitability scenario of Maruti Udyog Ltd. and evaluate the relationship among various profitability ratios and their joint impact using multiple correlations coefficient and multiple regression method. The study indicated that the inter-relation between the selected ratios regarding the company's position and performance and profitability of the company revealed both negative and positive association.

Mansur A. Mulla (2002) analyzed the financial health of Maruti Udyog Ltd using Z score model. It has been made an insight into the financial health of Maruti Udyog Ltd.; The Z score analysis has been applied to evaluate the general trend in financial health of a firm over a period by using many of the accounting ratios. The study concluded that the Maruti Udyog Ltd under study was just on the verge of financial collapse. Further, current assets declined because of the negative profitability performance, whereas the current liabilities were on the increase because of poor liquidity performance of the Maruti Udyog Ltd.

Vijayakumar (2002) in determinants of profitability a firm level study of the Automobile Industry of Tamil Nadu delved into the various determinants of profitability viz., growth rate of sales, vertical integration and leverage. The author also used current ratio, operating expenses to sales ratio and inventory turnover ratio. The study concluded that efficiency in inventory management and current assets are important to improve the profitability.

Vijayakumar (2002) appraised the financial performance of Maruti Udyog Ltd. He analysed the various aspects of the working of Maruti Udyog Ltd. The study used profitability, capital structure, fixed assets and working capital as variables for the analysis. The researcher's main finding is about the external funds which results in interest burden. It is certain that the Maruti Udyog Ltd will have better scope to function in an efficient manner if the owner's funds are increased and the borrowings are reduced.

Petia Topalova (2004) examines the performance of Indian Automobile industry since 1989 and evaluated its financial vulnerabilities. The study shows promising trends

in liquidity, profitability and leverage of the sector emerged in the early 1990s; they experienced a reversal after 1996. Nevertheless, most indicators were still at comfortable levels, and there is evidence of improvement in 2002. The study also reveals that a number of firms still face problems servicing their debt obligations, posing a risk to lenders. The study of aggregate interest coverage of the corporate sector indicates that potential non-performing loans of the corporate sector remain high. This underscores the need of the corporate sector remain high. This underscores the need for close monitoring of the corporate sector in the future.

Santimoy Patra (2005) studies the impact of liquidity on profitability in his study considering the case Tata Motors Limited. The study showed both negative and positive association of the impact of liquidity ratios on profitability. Liquidity ratios selected for this study, four ratios namely current ratio, acid test ratio, current assets to total assets ratio and inventory turnover ratio showed negative correlation with profitability ratio. Therefore, these correlation co-efficient were not statistically significant. The result of all the correlation coefficient is as desirable except correlation co-efficient between inventory turnover ratio and ROI. However this undesirable sign between ITR and ROI is not supported by the multiple regression analysis, which shows the positive association between these two variables. The results revealed that the increasing profitability is depends upon many factors including liquidity.

S. P. Singh (2006) studied the performance of Indian Automobile industry by ownership, size and location. Performance assessment of the sugar industry and setting targets for the relatively inefficient mill to improve their efficiency and productivity is crucial, as the interest of various stakeholders is largely dependent on its performance. The firm's performance of the mills is found to vary significantly across sector, plant size and region. The private sector mills achieve the highest efficiency scores, followed by the cooperative sector. It has also been found that the mills with bigger plant size attain relatively higher efficiency scores, moreover, the mills located in the WK found better

performer as compared to their counter parts of other regions. Labour and energy inputs are found highly underutilized in almost all the inefficient mills.

Srivastava, S.K. (2007) studied the role of organizational management and managerial effectiveness in promoting performance and production. The study revealed that the management is not confined merely to a factory or an office. The author stated that the skilful management is needed in clubs, families, Schools, Sports, teams and social functions like marriages, Picnics parties and so on. Although management is needed in various activities, it has special significance with respect to business enterprises in the public as well as private sectors. The productive efficiency of business firm depends a great deal on the Quality of management. The study concluded that the effectiveness of management is a major factor determining the growth and prosperity of a business on which rests the process of economic growth.

Adolphus J. Toby (2007) used the financial management modelling in order to evaluate the performance of Nigerian Automobile Industry. It is conceptualized that sustained growth, adequate liquidity and requisite profitability in the Nigerian Automobile Industry is significantly related to their investment and financing decisions. The study concluded that there was a significantly inverse relationship between current ratio and the gross profit margin, holding the working capital gap constant. The quoted SMES current assets ratio are significantly sensitive to commercial Banks, liquidity ratio, cash reserve requirements, and loan-to-deposit ratio. Overall, over model results confirm that the Automobile Industry in Nigeria is still limited by the liquidity-profitability dilemma, efficiency constraints, Pecking order reversals, stringent monetary policy regimes and a risk over banking system.

Dharmaraj and Kathirvel (2013), measured the growth and financial strength of Indian Automobile Industry covering a period from 1998-99 to 2011-12 and analyzed the financial performance through Mean, Standard Deviation and Ratio Analysis. The study revealed that there is huge scope for automobile companies in India as they are

financially strong and growing at a high rate making a reasonable contribution to the Indian Economy.

Murlidhar and Vishal (2013) evaluated the performance of Hyundai Motors India Ltd. with respect to Production, Domestic Sales, Export and Profit after tax. Hyundai fulfils the prospects of Indian customers by offering technologically advanced cars with more features and value for money. The study revealed that the company is playing the role as the fastest growing automobile manufacturer in India and the largest exporter of automobiles to European countries.

Sharma (2009) examined the value creation strategy of Hyundai India Ltd. by comparing Economic Value Added (EVA) with other conventional measures of corporate performance such as EPS, PAT, ROCE and RONE. It compares financial performance of Hyundai Limited, Tata Motors and Mahindra and Mahindra Limited from 2001 to 2010 using statistical tools such as Percentages, Mean, Standard Deviation, Coefficient of Variation and Correlation. The results showed that the Limited has higher EVA as compared to Tata Motors and Mahindra and Mahindra Limited. The study brings out that EVA is a more appropriate tool for measuring financial performance in contrast to conventional performance measures.

Agnihotri, D. and Chaturvedi, P. (2010), stated in their study that globalization and liberalization measures brought growth in automobile sector till 2009-10. Further, Indian Automobile Industry is facing an unpredictable slowdown in demand for light motor vehicles. Hike in fuel prices, economic slowdown, high interest on loans and emerging second hand car market are the major reasons for downfall of the Automobile Industry.

Rana and Lokhande (2010), examined the performance of Maruti Udyog Limited with respect to Export, Sales, Production and Sales Network to bring out that Maruti Suzuki is the leader of Indian Automobile Sector, providing remarkable Economic, Environmental and Social Performances. The study revealed that the company conducts

continuous Research & Development to offer superior and environment friendly products to their customers. Maruti Udyog Limited has the largest sales and service network amongst car manufacturers in India.

Dharmaraj and Kathirvel (2013), measured the impact of Foreign Direct Investment on the financial performance of Indian Automobile Industry using Descriptive Statistical tools like Mean, Standard Deviation and Student's paired t-Test. Profitability exhibited an increasing trend whereas liquidity ratios show little changes during post FDI in comparison to pre FDI. The study indicated that the efficiency displays the efficient utilization of available resources during post FDI. It is asserted that FDI in India creates positive impact on the financial variables of the Automobile Companies.

Manish and Deepali (2012), in their study identified the 21 most important criteria to be used as a baseline for supplier selection process of Automobile Sector in India. They further stated that the price is maintained as the most important criteria followed by Quality and Quality Standards. The data collected was subjected to Gray analysis and t-test. The biggest challenge to most of the automobile industries is change of mindset and traditional business approach. It is stated that the supplier selection starts with setting of the strategic goal and deciding the selection criteria based on organization's requirement.

Almazari (2010) evaluated the financial performance of the Automobile Companies of India using DuPont system of Financial Analysis for the period 2000-09. The study revealed that the financial performance of Automobile Companies reflects stability in the Return on Equity, Net Profit Margin and Total Asset Turnover. The Automobile Companies's financial leverage is less in the recent years, which means the Automobile Industry has little dependence on debt to finance its assets.

Christina (2010), measured the financial performance of Wheels India Limited-Chennai is adequate but there is decrease in profit level, utilization of fixed assets and

working capital in the last financial year. The study was made for the period ranging from 2005 to 2009. The statistical tools like Trend analysis, Correlation and financial tools including Ratio analysis, Comparative Balance sheet and DuPont analysis are used. A new approach for performance evaluation – DuPont analysis and Five Power Analysis methodology is applied to retrieve ratios used in financial analysis to tackle the problems of sample size and distribution uncertainty.

Steephon (2010) analyzed the performance through the liquidity, solvency, capital structure and profitability position of Ashok Leyland Limited in order to know the financial performance. In this study, exploratory research design is used to assess the firm's past, present and future financial conditions. The company has followed assertive strategy for growth, expansion and acquisitions, the profits have also zoomed up but tough competition is faced from foreign automobile players in the Indian market.

Rao (1993) discussed in his research about 'Financial appraisal of Indian Automotive Tyre Industry'. Main objective of study was intended to probe into the financial condition-financial strength and weakness-of the Indian tyre industry. He has been measured and evaluates the financial performance through inter-company and inter-sector analysis for the period of 1981-1988. He has found that the fixed assets utilisation in many of the tyre undertakings was not as productive as expected and inventory was managed fairly well. He has considered that the tyre industry's overall profit performance was subjected to inconsistency and ineffective. He has suggested some recommendations to improve financial performance.

Jagan Mohan Rao (1993)¹ in 'Financial appraisal of Indian Automotive Tyre Industry' studied the financial appraisal of Indian automotive tyre industry. The study was intended to probe into the financial condition-financial strength and weakness-of the Indian tyre industry. To this end a modest attempt has been made to measure and evaluate the financial performance through inter-company and inter-sectoral analysis over a given period of time (1981-1988). The main findings are that fixed assets

utilisation in many of the tyre undertakings was not as productive as expected and inventory was managed fairly well. The tyre industry's overall profit performance was subjected to inconsistency and ineffective.

Kallu Rao (1993)² has made a study of intercompany financial analysis of Indian Automobile industry- retrospect and prospect. An attempt has been made in this study to analyse the important variables of tea industry and projected future trends regarding sales and profit for the next 10 year periods, with a view to help the policy makers to take appropriate decisions. Various financial ratios have been calculated for analyzing the financial health of the industry. The forecast of sales and profits of tea manufacturing companies shows that the Indian tea industry has bright prospects. The recent changes in the Indian economic policies will boost up the foreign exchange earnings, which will benefit those companies, which are exporting to hard currency areas.

Pai, Vadivel and Kamala (1995)³ studied the diversified companies and financial performance: A study. An effort was made to study the relationship between diversified firms and their financial performance. Seven large firms having different products-both related and otherwise-in their portfolio and operating in diverse industries were analyzed. A set of performance measures / ratios was employed to determine the level of financial performance. The results reveal that the diversified firms studied have been healthy financial performance. However, variation in performance from one firm to another has been observed and statistically established.

In RBI study (1995)⁴ an attempt was made to study the financial performance of Indian Automobile industry during the period 1994-95. Of the 1030 companies covered in this study, 925 are non-financial companies and 105 are financial companies. The results of the non-financial and financial companies are also analyzed size-wise apart from the analysis of the consolidated results for the entire sector. The good corporate

performance during 1994-95 reflected in major profitability ratios registering distinct improvement in the year under review as compared to the previous year.

Vijayakumar (1996)⁵ in 'Assessment of Corporate Liquidity - a discriminate analysis approach' has revealed that the growth rate of sales, leverage, current ratio, operating expenses to sales and vertical integration are the important variables which determine the profitability of companies in the sugar industry. Further, the author has studied the short-term liquidity position in twenty-eight selected sugar factories in co-operative and private sectors. A discriminate analysis has been undertaken to distinguish the good risk companies from poor risk companies based on current and liquidity ratios. Discriminating 'Z' scores have been calculated with the help of discriminate function and according to the 'Z' scores the companies are ranked in the order of liquidity.

Joanne Loundes (1998)⁶ in his study examined performance of Australian Automobile industry:- An overview. Assessing the performance of Government Trading Enterprises (GTEs) has become increasingly important in the context of the push towards privatisation. This paper provides an overview of GTE performance over the 5 years to 1996 using the IBIS Enterprise Database, following the method of analyzing firm performance as outlined by the steering committee (1998). The results indicate that there are large differences in performance across firms, and more particularly, across the industries.

Raj S. Dhankar (1998)⁷ has given a new look at the criteria of performance measurement for Indian Automobile industry -a study of public sector undertakings. The author gives a new model for measuring the performance of a business enterprise in India, wherein, the basis is to compare its actual rate of return with its expected risk adjusted rate of return. Realizing the importance and controversy of public sector in India, an attempt was made to measure the performance of all public sector undertakings, which were started up to 1964 and were in operation until 1983. It is

shocking to know that half of them on an average want to talk of making excess returns, have not been able to earn equal to their cost of capital.

Key Sengupta (1998)⁸ studied the performance of the Indian Automobile industry. Analysis of cost functions have been made to study the performance of the industry, the results of which reveal that the industry is subject to the law of increasing costs. The findings get further support from the examination of the production function, which reveals that the average productivity of labour exceeds its marginal productivity. Analysis of shifting cost functions further highlight that the firms belonging to this industry expand capacities, even before fully exploiting the existing capacity conforming to the oligopolistic behavioural tendency of the firms belonging to the Indian Automobile industry.

Raghunathan and Prabina Das (1999)⁹ have made a study of the corporate performance of post-Liberalization. In this study, they analyzed the performance of Indian Automobile industry in the last 8 years since liberalization on the parameters of profitability, liquidity, leverage and solvency. While the solvency and profitability ratios were encouraging till 1996 they have been gradually diminishing after that. This problem gets more pronounced when the EVA is calculated which shows that the Indian Automobile industry has destroyed wealth, while the MNCs have generated wealth for their shareholders. The study points that poor corporate performance has led to an economic slowdown and not the other way round. Corporate raised funds during the blacken days of equity markets and ended up investing these funds at below their cost of capital. The outcome has been a prolonged economic slowdown.

Juliet D'Souza and William L. Megginson (1999)¹⁰ have studied the financial and operating performance of privatized firms during the 1990s. This study compares the pre and post privatization financial and operating performance of 5 Indian Automobile companies through public share offerings for the period from 1990 through 1996. The significant increases in profitability, output, operating efficiency, dividend payments

and significant decreases in leverage ratios for the full sample of firms after privatization were noticed. Capital expenditures increase significantly in absolute terms, but not relative to sales. Employment declines, but insignificantly. The findings of the study strongly suggest that privatization yields significant performance improvements.

Rupa Rege Nitsure and Mathew Joseph (1999)¹¹ in their study entitled, “Liberalisation and the Behaviour of Indian Automobile industry (A Corporate - Sector Analysis based on Capacity Utilisation) examined the impact of economic reform on productive capacity creation and utilization across various industries in the nineties. The results suggest that although substantial achievements occurred initially in creation and utilization of capacities in the various industries, there is significant room for further improvement in utilization. It analyzed the determinants of capacity use such as credit flows, import liberalization, fiscal consolidation and demand conditions, using panel data for 802 firms for the period 1993-98 to suggest an optimum combination of policies that is critical for realizing the unused capacity.

Rajeswari (2000)¹² studied the Liquidity Management of Indian Automobile industry -A Case Study of Tata Motors. It can be concluded from the analysis; the liquidity position of Tata Motors is not stable. Regarding liquidity ratios, there was too much of liquidity in the first two years of the study period. A very high degree of liquidity is also bad as idle assets earn nothing and affects profitability. It can be concluded that the liquidity management of Tata Motors is poor and is not satisfactory.

Dabasish Sur, Joydeep Biswas and Prasenjit Ganguly (2001)¹³ studied the Liquidity Management in Indian Automobile industry. From the analysis, it may be summarized that the overall performance regarding liquidity management at Maruti Suzuki was better in terms of efficient utilization of short term funds, whereas Tata Motors was unable to do so. A very high degree of positive correlation between liquidity and profitability in case of both the companies was a notable feature, reflecting the favorable effect of liquidity on profitability.

Aggarwal and Singla (2001)¹⁴ in their study developed a single index of financial performance through the technique of Multiple Discriminant Analysis (MDA). They attempt to identify from among the 11 ratios, used as inputs, those ratios, which are relevant in distinguish between profit making units and loss making units in Indian paper industry. The study indicates that model has correctly classified 82.14 percent of units selected as profit making and loss marking. The study also shows that inventory turnover ratio, interest coverage ratio, net profit to total assets and earnings per share are the most important indicators of financial performance. The study also suggests that the results of MDA can be used as predictor of future profitability / sickness.

Joanne Loundes (2001)¹⁵ in the study 'The Financial performance of Australian Automobile industry Pre-and Post-Reform' revealed that during the 1990's there were several measures introduced to improve the efficiency and financial performance of government trading enterprises in Australia. The purpose of this study was to discover whether there had been any change in the financial performance of government trading enterprises operating in electricity, gas, water, railways and ports industries as a result of these changes. The study reveals that it does not appear to have been a noticeable enhancement in the financial performance of most of this business, although railways have improved slightly, from a low base.

Mark Rogers (2001)¹⁶ in his research the effect of diversification on firm performance analyses the association between diversification and firm performance in a sample of up to 1449 large Australian firms (1994 to 1997). Firm performance is measured by profitability and, for quoted firms, market value. Results from the full sample shows that more focused firms have higher profitability. This result controls for firm specific effects and other determinants of profitability. However, this association is not found in sub-sample regressions for listed firms. This is true both when either profitability or market value is used as a performance measure. The results may indicate that listed firms may be under closer scrutiny and competitive pressures that ensure, on average, that these firms are at their optimal degree of diversification.

Dabasish Sur (2001)¹⁷ studied the Liquidity Management: An overview of four companies in Indian Automobile industry. In this study a comparative analysis regarding the liquidity management in Electricity generation and distribution industry has been made for the period 1987-88 to 1996-97. The study reveals that the overall liquidity should be managed in such a way that not only it should not hamper profitability but also its contribution towards increase in profitability should be positive.

Derek Bosworth and Joanne Loundes (2002)¹⁸ in his study entitled the Dynamic performance of Australian Automobile industry investigate the interaction of discretionary investments (R&D), capital investment, training and advertising), innovation, productivity and profitability within a dynamic framework of firm performance. A dynamic and closed model of firm performance is set up, and the resulting empirical model is tested as a series of recursive equations, using a four-year balanced panel data set of Australian firms drawn from the Business Longitudinal Survey. The results indicate that current economic profit has an important role to play in enabling firms to invest, and the findings indicate which of these investments complements are and which substitutes are. The study explores the impact of these discretionary investments on innovation and total factor productivity performance. Finally, the impact of past discretionary investments both directly and indirectly (that is, via innovation and productivity performance) on current profitability is examined. Past values of these investments have a significant influence on current profit, effectively closing the model.

Mansur A. Mulla (2002)¹⁹ in 'Use of 'Z' score analysis for evaluation of financial health of Indian Automobile industry. The 'Z' score analysis has been applied to evaluate the general trend in financial health of a firm over a period by using many of the accounting ratios. From the study it was concluded that the Indian Automobile industry as healthy sector.

Wolfgang Aussenegg and Ranko Jelic (2002)²⁰ examine operating performance of 154 Polish, Hungarian and Czech companies that were fully or partially privatized between January 1990 and December 1998. The study reveals that privatized firms in the sample did not manage to increase profitability, and significantly reduced efficiency and output in the post privatization period. Enterprises privatized through mass privatization programs (Czech SOEs) achieved lower profitability in the post-privatization period compared to their counterparts privatized through case- by - case method. Czech companies have also maintained much higher bank borrowings after privatizations than their polish and Hungarian counterparts. The study further reveals that private sector IPOs underperforms their privatization counterparts in terms of profitability, efficiency, capital investments and output. Finally firm's size does not seem to influence key performance measures in selected countries.

Sudarsana Reddy (2003)²¹ studied the Financial Performance of Indian Automobile industry. The main objectives set for the study are to evaluate the financing methods and practices to analyze the investment pattern and utilization of fixed assets, to ascertain the working capital condition, to review the profitability performance and to suggest measures to improve the profitability. The data collected have been examined through ratios, trend, common size, comparative financial statement analysis and statistical tests have been applied in appropriate context. The main findings of the study are that A.P paper industry needs the introduction of additional funds along with restructuring of finances and modernization of technology for better operating performance.

RBI Corporate Studies Division (2003)²² has made an attempt to study the performance of corporate business sector during the first half of 2002-2003. The results of 146 private companies of various sectors were analyzed on the various parameters of performance. Aggregation and comparison of the results of the first two quarters were done on these performance parameters. It was concluded that the performance of the private sector was better when compared with the first half of the previous year (2001-

2002). This was indicated by the following parameters viz., higher sales, reduced interest payments and ultimately improved profitability. Sector-industry wise analysis of performance has been done to highlight those areas where the performance has been better vis-à-vis sectors, which have lagged behind in performance.

Ram Kumar Kakani, Biswatosh Saha and Reddy (2003)²³ attempts to provide an empirical validation of the widely held existing theories on the determinants of firm performance in the Indian context. The study uses financial statements and capital market data of 566 large Indian firms over a time frame of eight years divided into two sub-periods (1992-96 and 1996-2000) and to study Indian firm's financial performance across various dimensions viz., shareholder value, accounting profitability and its components, growth and risk of the sample firms. The study found that size, marketing expenditure and international diversification had a positive relation with a firm's market valuation. The study also found that a firm's ownership compositions, particularly the level of equity ownership by domestic financial institution and dispersed public shareholders, and the leverage of the firm were important factors affecting its financial performance.

Laurent Weill (2004)²⁴ in his study leverage and corporate performance-a frontier efficiency analysis provides new empirical evidence on a major corporate governance issue: the relationship between leverage and corporate performance. His study provides two major importance's to this literature by applying frontier efficiency techniques to obtain performance measures for companies from several countries (France, Germany and Italy). The study proceeds to regressions of corporate performance on a various set of variables including leverage. The study found mixed evidence depending on the country; while significantly negative in Italy, the relationship between leverage and corporate performance is significantly positive in France and Germany. This tends to support the influence of some institution characteristics on this link.

Petia Topalova (2004)²⁵ in his study uses firm level data to examine the performance of India's non-financial corporate sector since 1989 and evaluate its financial vulnerabilities. The study shows promising trends in liquidity, profitability and leverage of the sector emerged in the early 1990s, they experienced a reversal after 1996. Nevertheless, most indicators were still at comfortable levels, and there is evidence of improvement in 2002. The study also reveals that a number of firms still face problems servicing their debt obligations, posing a risk to lenders. The study of aggregate interest coverage of the corporate sector indicates that potential non-performing loans of the corporate sector remain high. This underscores the need of the corporate sector remain high. This underscores the need for close monitoring of the corporate sector in the future.

Raghunatha Reddy and Padma (2005)²⁶ in their study, an attempt has been made to study the impact of mergers on corporate performance. It compares the pre and post-merger operating performance of the corporations involved in merger to identify their financial characteristics. Empirical research on share price performance suggests that acquiring firm generally earns positive returns prior to announcement, but less than the market portfolio in the post liberalisations period in general and analysis of the pre and post-merger operating performance of the acquiring firm.

Santimoy Patra (2005)²⁷ the impact of liquidity on profitability is analysed in his study considering the case Tata Motors India Pvt. Limited. The study of the impact of liquidity ratios on profitability showed both negative and positive association. Out of seven liquidity ratios selected for this study, four ratios namely current ratio, acid test ratio, current assets to total assets ratio and inventory turnover ratio showed negative correlation with profitability ratio. However, these correlation co-efficient were not statistically significant. The remaining three ratios namely working capital turnover ratio, receivable turnover ratio and cash turnover ratio have shown positive association with the profitability ratio, all of which are statistically significant at 5% level of significance. The result of all the correlation co-efficient is as desirable except

correlation co-efficient between inventory turnover ratio and ROI. However this undesirable sign between ITR and ROI is not supported by the multiple regression analysis, which shows the positive association between these two variables. There is increasing profitability which depends upon many factors including liquidity.

RBI Bulletin (2005)²⁸ Finance of Foreign Direct Investment companies, 2002-03. An attempt has been made to assess financial performance of 490 selected non-governments non-financial foreign direct investment (FDI) companies for the period 2001 based on their audited annual accounts. The financial results of the selected company should improve performance in terms of higher growth in sales, value of production, manufacturing expenses and gross profit during 2002-03 compared with the respective growth rates in the previous year. The profitability ratios like profit margin return on network increased during the year under Review Company having major portion of FDI from UK, USA, Switzerland and Mauritius registered net flow of foreign companies in all the three years.

S. P. Singh (2006)²⁹ in his study performance of Indian Automobile industry by ownership, size and location. Performance assessment of the Indian Automobile industry and setting targets for the relatively inefficient mill to improve their efficiency and productivity is crucial, as the interest of various stakeholders is largely dependent on its performance. The performance of the mills is found to vary significantly across sector, plant size and region. The private sector mills achieve the highest efficiency scores, followed by the cooperative sector. It has also been observed that the mills with bigger plant size attain relatively higher efficiency scores, moreover, the mills located in the WK found better performer as compared to their counter parts of other regions. Labour and energy inputs are found highly underutilized in almost all the inefficient mills.

Debasish Sur and Kaushik Chakraborty (2006)³⁰ in his study financial performance of Indian Pharmaceutical industry: The Indian Automobile industry has

been playing a very significant role in increasing the life expectancy and in decreasing the mortality rate. It is the 5th largest in terms of volume and the 14th largest in value terms in the world. The comparative analysis the financial performance of Indian Pharmaceutical industry for the period 1993 to 2002 by selecting six notable companies of the industry. The comparison has been made from almost all points of view regarding financial performance using relevant statistical tools.

Kapil Choudhary (2007)³¹ in his study performance of the common stocks under alternative investment strategies .While the efficient market hypothesis denies the possibility of earning abnormal returns, the fundamental analysts assert that investment strategies based on the accounting numbers may be indicators of future investment performance. The present study examines the relationship between investment performance of equity securities and alternative investment strategies based on their market capitalization, P/E ratio and earnings per share. During the period from January 1997 to December 2005, the low market capitalization, P/E ratio, and earnings per share portfolios on average earned higher absolute rate of return than the high market capitalization, P/V ratio, and earnings per share portfolios respectively. Among the three investment strategies the low market capitalization investment strategy was found superior to both low P/E ratio and low earning per share investment strategies in terms of absolute and risk adjusted rate of return.

P.Janaki Ramudu and S.Durga Rovo (2007)³² in his study Receivables management in the commercial vehicles industry in India. This paper examines the efficiency of receivables management of the Indian commercial vehicles industry. This study reveals that the industry as a whole had managed receivables efficiently, whereas a few individual companies had for less satisfactory scores in this respect. The study reveals that the level of investment in receivables as a percentage of sales across the industry was reasonable less. When benchmarked against the industry average, Ashok Leyland and Swaraj Mazda had recorded poor performance in the receivables management, where as a Tata Motors, Bajaj Tempo, and Eicher Motors, did well.

Monicor Singhania (2007)³³ in his study Dividend policy of India companies. The analysis revealed that while the percentage of companies declaring dividend declined over the years, the average dividend per share increased by nearly eight times . This implies that those companies declare dividend, increasingly per higher dividends over the years. Average dividend pay-out ratio ranged between 25% and 68% during 1992-2004. However average dividend yield showed a consistent upward trend throughout the period of study-increasing from 0.75% in 1992 to 10% in 2004. One possible reason for the increase in dividend payout may be the change in tax regime. According to tax preference or trade-off theory, favorable dividends tax should lead to higher payouts.

S.K.Srivastorva (2007)³⁴ in his study Role of Organizational management and managerial Effectiveness in promoting performance and production. Management is a universal Phenomenon. It is present in virtually all walks of life. Management is not confined merely to a factory or an office. Skillful management is needed in clubs, families, Schools, Sports, teams and social functions like marriages, Picnics parties and so on. Lack of proper management invariable results in chaos, wastage of time, money and effort. Although management is needed in various activities, it has special significance with respect to business enterprises in the public as well as private sectors. The productive efficiency of business firm depends a great deal on the Quality of management. Also effectiveness of management is a major factor determining the growth and prosperity of a business on which rests the process of economic growth.

T.Vanniarajan and C.Samuel Joseph (2007)³⁵ in his study An Application of DuPont control chart in Analyzing the financial performance of Banks. The liberalization of the finance sector in India is exposing Indian banks to a new economic environment that is characterized by increased competition and new regulatory requirements. Indian and foreign banks are exploring growth opportunities in India by introducing new products for different customer segments, many of which were not conventionally viewed as customer for the banking industry. Many Banks have, in the

last ten years, witnessed new shareholders. All banks are in a position to evaluate its performance compared to others. In general, the performance of the banks may be viewed on three dimensions namely structural, operational and efficiency factors are suggested By India Bank Association.

Adolphus J. Toby, Ph.D. (2007)³⁶ in his study, Financial management modelling of the performance of Nigerian Quoted Small and medium-sized Enterprises. It is conceptualized that sustained growth, adequate liquidity and requisite profitability in the SME sector is significantly related to their investment and financing decisions. The empirical results show a significantly inverse relationship between current ratio and the gross profit margin, holding the working capital gap constant. The quoted SMES current assets ratio are significantly sensitive to commercial Banks 'liquidity ratio, cash reserve requirements, and loan-to-deposit ratio. Overall, over model results confirm that the SME sector in Nigeria is still limited by the liquidity-profitability dilemma, efficiency constraints, Pecking order reversals, stringent monetary policy regimes and a risk-over banking system.

Section II Review of empirical studies on profitability analysis

Rao (1985)³⁷ in his work entitled 'Impact of Debt-Equity Ratio on Profitability-An Exploratory Study of Indian Automobile industry, observes if the earning ability i.e., profitability, has any impact on the debt-equity ratio in engineering companies. The study based on the impact of profitability on the debt-equity ratio has revealed a negative association i.e., high debt-equity ratios meant low profitability due to large interest payments, whereas low debt-equity ratio caused high profitability because of low interest payments. The operating efficiency of the firm and reasonable rate of return on owner's capital ultimately depend on the profits earned by it. Thus, profits are necessary to run the firm in a healthy atmosphere of present day cut throat competitions and defend it from business rivalry.

Deepak Chawola (1986)³⁸ studied an empirical analysis of the profitability of the Indian Automobile industry. This study examines and explains the trends in the profitability of the Indian man-made fibres industry. The relevant data for the study is obtained from 17 firms found in BSE Official Directory for the period 1963-64 to 1977-78. An increase in the excise duty of man-made fibres seems to be associated with the decline in profitability of the industry. Both concentration and vertical integration influence the profitability. However, their impact differs for cellulose and petro-chemical based group of fibres.

Nagarajan and Burthwal (1990)³⁹ in their research work entitled “profitability and structure: A firm level study of Indian Automobile industry”, intensively examined the relationship between profitability and structure, using a sample of thirty-eight pharmaceutical firms in India for the period 1970-1982. Two measures of profitability i.e., ratio of net profit to total sales revenue and the ratio of net profits to total assets have been used to find out the determination of profitability. The analysis demonstrated that under the condition of price controls the most significant determinant of the profitability of the firms in this industry is vertical integration. Size and advertising intensity did not appear to be major determinants. This was perhaps due to the inability of firms to translate their market power into prices, because of controls. The coefficient of growth rate of sales was positive and significant, suggesting that factors on the demand side of a firm had a greater impact on profitability than on the supply side.

Canyon and Machin (1991)⁴⁰ in ‘The Determinants of Profit Margins in U. K. Manufacturing’, made an attempt to find the causes of inter-industry variations in profit margins for 90 U.K. Manufacturing Industries over the period 1983 to 1986. Labour-market characteristics (such as trade union coverage and unemployment), import intensity, concentration and capital stock were taken as independent variables. The study revealed that the union coverage and unemployment had a negative impact on profit margins. On the other hand, import intensity, concentration and capital stock were significant in explaining inter-firm variations in profit margins.

Krishnaveni (1991)⁴¹ in her study evaluated the impact of policy changes since 1982-92 on profitability and growth of firms in the industry using Tobin's q as a measure of profitability. The study finds no evidence to show that firms have made supernormal profits. Profitability is found to be explained mainly by age of the firms, vertical integration, diversification and industry policy dummy variables. Important determinants of the growth of firms are found as diversification, industry policy dummy variable, gross retained profits and expansion of capacities. Results also reveal differences in performance between car and non-car sectors as well as within the sectors of the industry.

Chandrasekaran (1993)⁴² in 'Determinants of profitability in Indian Automobile industry, has studied the determinants of profitability in Indian Automobile industry. The objective of this study was to examine determinants of profitability in Indian Automobile industry. The study aims at drawing inference on impact of policy measures which led to change in price and distribution policies relevant for Indian Automobile industry. Determinants of profitability are analysed using the technique of ordinary least squares. Based on existing theories and relevant econometric empirical works, variables are selected. The study concluded that efficiency in inventory management and efficient management of current assets were important to improve profitability.

Cleveland and Frederick (1993)⁴³ in their study 'Profitability, Uncertainty and Firm Size', examines the connections between variations in profit and loss rates among firms in small-firm and large-firm size classes as reflections of uncertainty. They found that, within industries, such variations are particularly great for firms in small-firm size classes, leading to operating policies for small firms best characterized as entrepreneurial. Large firms, in contrast, faced with less uncertainty in earning profit, appear to adopt policies that manifest an emphasis on strategic planning.

Vijayakumar and Venkatachalam (1995)⁴⁴ in 'Working Capital and Profitability - An Empirical Analysis' studied the impact of working capital on profitability in sugar industry of Tamil Nadu by selecting a sample of 13 companies; 6 companies in co-operative sector and 7 companies in private sector over the period 1982-83 to 1991-92. They applied simple correlation and multiple regression analysis on working capital and profitability ratios. They concluded through correlation and regression analysis that liquid ratio, inventory turnover ratio, receivables turnover ratio and cash turnover ratio had influenced the profitability of sugar industry in Tamil Nadu.

James Ted McDonald (1997)⁴⁵ in the study entitled 'The Determinants of Firm Profitability in Australian Manufacturing' provides new evidence on the determinants of the profitability of Australian manufacturing firms by analyzing a unique firm level data set of firm performance over the period 1983-1993. From estimations based on an adaptation of a standard oligopoly model, econometric results suggest that lagged profitability is a significant determinant of current profit margins, and that industry concentration is positively related to firm profit margin. As well, both union density and real wage inflation are found to be negatively associated with firm profits. Finally, the cyclicity of profit margins depends on industry concentration - firm margins are pro-cyclical in concentrated industries and are counter-cyclical in less concentrated industries.

Sidhu and Gurpreet Bhatia (1998)⁴⁶ studied the factors affecting profitability in Indian textile industry. In this study an attempt was made to identify the major determinants of profitability in Indian textile industry with the help of empirical data taken from Bombay Stock Exchange Directory for the year 1983. To find out the factors affecting profitability, regression analysis had been applied. From the analysis, there was no clear-cut relationship between current profitability and capital intensity. The age of the firm was having generally negative but statistically insignificant relationship with current profitability which points towards the fact firms in Indian textile industry are absolute and need modernization.

Kuldip Kaur (1998)⁴⁷ studied size, growth and profitability of firms in India. It is in this context that the study of various facets of 235 firms of India has been undertaken, covering the period from 1970-71 to 1989-90. Growth pattern of the firms showed that majority of the firms recorded growth rate from 10 to 20 per cent. Two measures of profitability have been used in the study. First measure is the profitability margin (operating profit as percentage of net sales). Second measure is the profitability rate (gross profit as percentage of net sales). However, the analysis in case of Indian firms showed that there was no systematic tendency for average profitability to increase/decrease as the size of the firm changed.

Amit Mallick and Debasish Sur (1998)⁴⁸ examined the Working capital and profitability: a case study in interrelation. The study explores the correlation between ROI and several ratios relating to working capital management. In this study an effort has been made to make an empirical study of AFT industries Ltd., a tea producing enterprise in Assam for assessing the impact of working capital on profitability by computing simple correlation co-efficient between ROI and each of some selected important ratios relating to working capital management and to test the significance of such coefficients. The study on the inter relation between the selected ratios in the areas of working capital management and profitability of the company revealed both negative and positive association.

Simon Feeny and Mark Rogers (1998)⁴⁹ in their research work entitled 'Profitability in Australian Enterprises' analyses profitability in a sample of large Australian companies over the period 1985 to 1996. Various measures of profitability are used and the paper provides a discussion of the theoretical basis for these measures. The key issues investigated are a comparison of the profitability measures, the distribution of profitability between firms, and the persistence of firm profitability. The results are compared to previous studies on firm profitability.

Vijayakumar (1998)⁵⁰ has examined the determinants of corporate size, growth and profitability- the Indian experience. To meet the objectives of the study, Indian public sector industries were selected. The data relating to size, growth and profitability were collected from their annual reports published by the Bureau of Public Enterprises (BPE), Government of India. The study covers the period from 1980-81 to 1995-96. The technique of average, correlation and linear and multiple regression analysis has been used in this study. Inter - industry analysis reveals that the growth is positively and significantly associated with the size in all the industry groups except textiles.

VishnuKanta Purohit (1998)⁵¹ in 'Profitability in Indian Industries: An analysis of firm size and profitability' examined the relation between size and profitability in Indian industries. The study highlights the following two common conclusions. Firstly, though the average profitability of firms does not seem to vary significantly with their size and the variability of profit rates declines with size. Secondly, the average growth rates of firms do not seem to vary significantly with their size but the variability of growth rates only. The study further explores the factors that determine profitability. Besides the size, the model also tests for the impact of age of the firm and growth in sales on profitability at both micro and macro levels. The study concludes that the selected industries and firms have made efforts to increase profitability through various means including increase in size through diversification and moving into higher technology.

Glancey (1998)⁵² in his study determinants of growth and profitability in small entrepreneurial firm investigates the relationship between company characteristics including size, age, location and industry group, and profitability and growth. The trade-off between the possibly conflicting objectives of profit and growth is considered primarily from the entrepreneurial rather than the managerial standpoint which previous econometric studies of small firm performance have concentrated on. It is argued that a firm size measure based on employment is more appropriate than one based on sales or assets which previous studies have used. Firm characteristics are found to be of limited value in explaining profitability. However, larger firms are found to grow faster than

smaller, and younger firms are found to grow faster than older. There is also some evidence that growth is stronger in urban than in suburban or rural locations.

Agarwal (1999)⁵³ studied the profitability and growth in Indian Automobile manufacturing industry. The objective of this study is to examine if firms have been making super normal profits since 1975 when price controls were removed. It also evaluates the impact of policy changes since 1981-82 on profitability and growth of firms in the industry using Tobin's Square as a measure of profitability. The study finds no evidence to show that firms have made super normal profits. Profitability is found to be explained mainly by the age of the firms, vertical integration, diversification and industry policy dummy variable. Important determinants of the growth of firms are found as diversification, industry policy dummy variables, gross retained profits and expansion of capacities. Results also reveal differences in performance between car and non-car sectors as well as within the sectors of the industry.

Soumyendra Kishore Dutta (1999)⁵⁴ examined an analysis of profitability trend in the Indian Automobile industry. The disadvantage situations of a large number of mills are reflected in the haphazard movement of the mill sector's profitability ratio. Loss of market share of mill made cotton cloth to synthetic substitutes, burden of unfavourable excise duty, uncertainty in supply of raw cotton, untoward labour legislation, underutilization of capital and high capital cost added to the aforesaid fluctuations in profitability. Lower base of the profitability ratios and the warning financial position of the majority of the mills have left them with resources to undertake renovation and modernization.

Simon Feeny and Mark Rogers (1999)⁵⁵ in their research work entitled 'Market Share, Concentration and Diversification in Firm Profitability' review the role of market share, concentration and diversification in firm performance. An empirical analysis of the profitability of 722 Large Australian firms for the period 1993 to 1996 was also undertaken. Using simple regression techniques the analysis suggests that industry

concentration (as proxies by the 4-firm concentration ratio) has a positive influence on profitability. The market share of a firm does not appear to have any significant linear association with profitability; however, a non-monotonic relationship is found to be significant.

Govinda Rao and Mohana Rao (1999)⁵⁶ in 'Impact of working capital on profitability in Indian Automobile industry - A Correlation Analysis', analyse the impact of profitability on working capital in cement industrial units in India. Ten variables on working capital ratios have a close interaction with profitability measures viz., current ratio, debt equity ratio, cash position ratio, working capital turnover ratio, inventory turnover ratio, debtors turnover ratio, cash turnover ratio, current assets turnover ratio and average collection period are selected for analysis. The inter-relationship are to be studied with the help of Karl-Pearson's co-efficient of correlation technique, by arranging the correlation of one variable with each other variable in the form of matrices which are a triangular and symmetrical about the principal diagonal. On overall basis out of 10 variables with PBDIT, 3 variables showed a significant co-efficient and seven exhibited insignificant relationships. Out of the 10 variables, 5 variables showed negative association while the others showed positive relationships.

Mohammed Rafiqul Islam (2000)⁵⁷ studied the profitability of Automobile industry in Bangladesh from 1985-86 to 1994-95. The sample included five Automobile firms. The findings of the study indicate that none of the selected units were consistent and all the units were plagued with declining profits. The study concluded with suggestions for improvement of the profitability of fertilizer industry in Bangladesh.

Simon Feeny (2000)⁵⁸ in his research study entitled determinants of profitability: an empirical investigation using Australian tax entities. Using simple regression techniques the analysis suggests that size of entity is positively related to profitability but industry characteristics have limited importance in explaining entity profitability. Concentration, defined at a 4 digit level, is positively and significantly related to entity profitability in

27 per cent of Australian 3 digit industries, while a significant negative association is found in 8 per cent of the industries. There is some evidence that barriers to entry have the positive relationship with entity profitability as dictated by theory when proxied by the industry capital intensity but not when proxied by the minimum efficient scale or industry trademark intensity. There is strong evidence that the market share of an entity has a U-shaped relationship with profitability.

Debashish Rej and Debashish Sur (2001)⁵⁹ studied the profitability analysis of Indian Automobile industry. The study attempts to measure the profitability scenario of Indian Automobile industry and analyses the relationship among various profitability ratios and their joint impact using multiple correlation co-efficient and multiple regression method. The study on the inter-relation between the selected ratios regarding the company's position and performance and profitability of the company revealed both negative and positive association.

Vijayakumar (2002)⁶⁰ in "Determinants of Profitability-A firm level study of the Sugar Industry of Tamil Nadu", delved into the various determinants of profitability viz., growth rate of sales, vertical integration and leverage. Apart from these three variables, he had selected current ratio, operating expenses to sales ratio and inventory turnover ratio. Econometric models were used to test the various hypotheses relating to profitability with other variables. The researcher noted in his conclusion that efficiency in inventory management and current assets are important to improve the profitability.

Jack Glen, Kevin Lee and Ajit Singh (2002)⁶¹ in their study presents time-series analyses of corporate profitability in seven leading Developing Countries (DCS) using the common methodology as the persistence of profitability (PP) studies and systematically compare the results with those for Advanced Countries (ACS). Surprisingly, both short and long term persistence of profitability for DCS is found to be lower than those for ACS. The paper concentrated on economic explanation for these findings. It also reports the results on the persistence of the two components as

profitability-capital-output ratios and profit margins. These two raise important general issues of economic interpretation for persistence of profitability (pp) studies, which are outlined.

Vijayakumar (2002)⁶² in his study 'Financial appraisal of Salem Co-operative Sugar Mills Ltd, Mohanur' analysed the various aspects of the working of Salem Co-operative Sugar Mills Ltd, Mohanur. Financial appraisal has been studied with respect to profitability, capital structure, fixed assets and working capital. The researcher's main finding is about the Mill's over reliance on external funds which results in interest burden. It is certain that the Mill will have better scope to function in an efficient manner if the owner's funds are increased and the borrowings are reduced.

Vijayakumar and Kadirvel (2003)⁶³ studied the determinants of profitability of Indian Public Sector Manufacturing Industries-An Econometric analysis. It is evident from the results that age is the strongest determinant of profitability followed by the variables vertical integration, leverage, size, current ratio, inventory turnover ratio, operating expenses to sales ratio and growth rate. The selected variables have both positive and negative contribution in variation of profit rate. In a nutshell, it can be concluded that firms should consider all these possible determinants while considering its profitability.

Vijayakumar and Kadirvel (2003)⁶⁴ studied the profitability and size of firm in Indian Minerals and Metals industry. Generally, it is suggested that the larger the firm may be in a position to earn a higher rate of return on its investment than the smaller firm. Similarly, a counter argument is that size breed's inefficiency and hence profitability may decline with size of firms. Thus, they find that some theoretical arguments suggest that profitability should increase with the firm size, others suggest a negative relationship. It is in view of these contradictory suggestions, that it becomes necessary to study the relationship between size and profitability of the firms. For this purpose, Indian public sector minerals and metals industry has been selected. The study reveals that size is found to be significantly associated with the profitability during the study

period. It is also evident from the analysis that size is positively associated with the profitability. Thus, larger firm may be in a position to earn higher rate of return on investment through diversification and moving into higher technology.

Zuobao Wei, Oscar Varela, Juleit D' Souza and Kabir Hassan (2003)⁶⁵ in 'The financial and operating performance of China's newly privatized firms', examine the pre- and post-privatization financial and operating performance of 208 firms privatized in China during the period 1990-97. The full sample results show significant improvements in real output, real assets and sales efficiency, and significant declines in leverage following privatization, but no significant change in profitability. Further analysis shows that privatized firms experience significant improvements in profitability compared to fully state-owned enterprises during the same period. Firms in which more than 50 per cent voting control is conveyed to private investors via privatization experience significantly greater improvements in profitability, employment, and sales efficiency compared to those that remain under the state's control. Privatization seems to work in China, especially the more private firms become successful operators.

Maninder S.Sarkaria and Shergil (2004)⁶⁶ aims to test how market structure may affect performance. The study has employed model consulting determinants of both structure and profits. In order to decompose the variation performance variables like industry effect, seller concentration, market share, capacity utilization, size, leverage, skill, risk, age and capital intensity have been included in the regression models as the determinants as performance. The study results suggest that market share is positively and concentration is negatively related to performance. The industry membership has turned up to be an important determinant of firm growth.

Marcos A. M. Lima and Marcelo Resende (2004)⁶⁷ in his work entitled profit margins and business cycles in the Brazilian industry: a panel data study investigates the relationship between profit margins and business cycle in the Brazilian industry during

the 1992-1998 period, taking as reference a dynamic panel data model founded around a conjectural variation framework. The empirical results indicate pro- cyclical behavior of profit margins for the aggregate business cycle but are less clear in the case of sector-specific business cycle variables. Among the most robust results, one can highlight the roles of lagged profitability and import intensity and the negligible role of union density.

Bhanu (2005)⁶⁸ in his paper the structural adjustment programmes and the new industrial policy adopted by the Indian government has enabled business houses to undertake the programme of expansion either by entering into a new market or through expansion in an existing market. In this context, it is found that in order to expand and grow companies in India they are increasingly resorting to mergers and acquisitions. In this regard this study has identified twelve companies and proposes to examine the growth of the merged company's vis-à-vis select one hundred thirty four companies in terms of net fixed assets and paid-up capital for the period 1990-91 to 1997-98. The study also examines the trends in profitability of the merged and selected companies for the above-mentioned period. The study concluded that the merged companies have been more successful and profitability under all the heads examined, were higher for these companies as compared to the select companies.

RBI Bulletin (2005)⁶⁹ in RBI study 2005 an attempt was made to study performance of private corporate Business sector During the First Half of 2004-05. The performance of non-Government non- financial improved significantly as evidenced my marked increases in sales and profit, despite a moderate increase in interest payments during first half of 2004-05. Profitability in terms of Profit margin on sales and return on sales recorded high increase in the paid-up Capital (PUC) size class Rs.25 Crore and above. Interest burden was lighter than that in the corresponding period of the previous year. The non-Government financial companies recorded improvements in income from operations and profit after for during and over the Quarters of the first half of 2004-05.

Santanu Kumar Ghosh and Paritosh Chandra Sinha (2007)⁷⁰ in his study can Firm's capital structure Decision help an Investor (A Risk Averter or Risk Taker) A case study on Automobile Industry in India . The question of relevance of the capital structure in the context of Shareholder's value maximization remains unsolved as yet. In this paper the hypothesis is leverage variable can explain firm's value maximization and the same has been tested in the context of the Automobile industries in India. Our results reveal that shareholder's returns very significantly with significant variance in firm's dept levels. Firm are more conservative in maintenance of long-term debt to equity ratio than that of total debt to equity ratio. Increase in dept levels does not contain always good news to the investors and risk takers act differently.

Manoj Anand and Keshar Malhotrov (2007)⁷¹ in his study Working Capital performance of corporate in India: An attempts to develop quantitative benchmarks at the firm and the industry level, so as to evaluate the working capital management performance of corporate India from time to time. During the period of study, Corporate India has achieved a compound Annual growth Rate (CAGR) of 26.3% in net sales and 1.6 % in the three- year average cash operating margins. The length of the operating cycle and cash conversion cycle has reduced by 10. 2% and 12.7% respectively on compounded annual basis. The paper finds very little evidence on the positive relationship between working capital management and firm profitability. The finding of the paper capture the dynamics of risk-return trade off, which will help the performance evaluation of working capital management of corporate India.

Manor Selvi .A. and Vijaya Kumar.A (2007)⁷² in this study structure of profit rates in India automobile industries – a comparison an attempt has been made in this study to examine the trends of profit of selected Indian automobile Industries over the period from 1991-92 to 2003-04. It shows a declining trend in profitability of ten out of eighteen industries (55.55 per cent). India automobile industries studied here is a very big cause of concern. The falling tendency of profit rates of these industries is a proof of

adverse effect of various control on prices, output, expansion and investment etc., extended by government on these industries over time.

Section III Review of empirical studies on Economic Value Added (EVA)

Stern (1990)⁷³ observed that EVA as a performance measure captures the true economic profit of an organization. EVA-based financial management and incentive compensation scheme gives manager better quality information and superior motivation to make decisions that will create the maximum shareholders' wealth in an organization. EVA is a performance measure which is more closely linked to the creation of shareholders' wealth over a period of time. Accordingly, EVA should be made the focal point for financial reporting, planning and decision-making.

Rutledge (1993)⁷⁴ supported the concept as such. Economic value added is a phrase used by Stern Stewart & Company to describe the way to measure economic profit. The way to calculate economic profit is to subtract its cost of charge capital from after tax profits. A positive number means that an economic profit exists. Managers today are being swamped by stream of sophisticated new management concepts, each with a fancy name and its own glossary of technical terminology. The latest serving dish of this kind is EVA (Economic Value Added), Stern Stewart and Co's name for the old friend's economic profit, the old Alfred Marshal concept taught everywhere in micro-economics classes.

Stewart (1994)⁷⁵ has expanded that EVA is a powerful new management tool that has gained worldwide recognition as the standard tool of corporate performance. EVA, presents an integrated framework of financial management and incentive compensation. The adoption of EVA system by more and more companies throughout the world clearly depicts that it provides an integrated decision-making framework, can reform energies and redirect resources to create sustainable value for companies, customers, employees, shareholders and for management.

Ochsner (1995)⁷⁶ brought into being that 'Economic Value Added' (EVA) is a performance measure that examines the company's financial results in economic language. It also quantifies the annual constituent of free cash inflows minus total capital expenses. This over 50-years old methodology is becoming popular once again because it is not an accounting-based approach, something that many managers have found unreliable. More importantly, EVA technique is making a comeback because they can gauge whether a firm is generating economic returns. This capability satisfies investors that want companies to record such returns. In addition, EVA can be used as a tool for assessing financial performance. This performance measure also has a downside that makes it unacceptable to some managers, who include the fact that EVA uses software in computing financial results, so that managers can not actually know, how performance numbers are derived.

Grant (1996)⁷⁷ found that the EVA concept may have everlastingly changed the way real profitability is measured. Pioneered by Stern Stewart Management Services in the 1980s, EVA is a financial tool that focuses on the difference between company's after tax operating profit and its total cost of capital. A survey was conducted that examines the empirical relations between EVA and corporate valuation. Results suggest that EVA significantly bangs the Market Value Added of a firm and that this wealth effect stems from the company's residual return on capital.

Luber (1996)⁷⁸ confirmed that MVA is in compliance with the direction of the market. Studies have shown that a company which shows a positive EVA over a period of time will also have an increasing MVA while negative EVA will bring down MVA as the market loses confidence in the competence of a company to ensure a handsome return on the invested capital. The five top most companies as the wealth creators-Coke, GE, Microsoft, Merck and Philip Morris-have strong EVAs and are expected to remain in the top niche in the upcoming years.

Banerjee (1997)⁷⁹ has conducted an empirical research to find the superiority of EVA over other traditional financial performance measures. Ten industries have been chosen and each industry is represented by four/five companies. ROI and EVA have been calculated for sample companies and a comparison of both has been undertaken, showing the superiority of EVA over ROI. Indian companies are gradually recognizing the importance of EVA. Some of such companies are Ranbaxy Laboratories, Samtel India Ltd. and Infosys Technologies Ltd.

Bacidore et al., (1997)⁸⁰ observed that the operating performance measures are evaluated in the context of shareholder value creation. Economic Value Added performs well in correlation with shareholder value creation. A refinement of Economic Value Added called Refined Economic Value Added, is proposed. This measure is theoretically and empirically superior in measuring a firm's financial performance. They have observed that change in shareholder value can be fittingly depicted by applying market derived cost of capital to market value of company assets/organization value. They have described the phenomenon with the help of an improved concept termed as Refine Economic Value Added (REVA). This new concept has been defined as:

$$REVA_t = NOPAT_t - K_w (MV_{t-1})$$

Where,

MV_{t-1} = Total market value of the company's assets at the end of the period t-1.

K_w = Weighted average cost of capital.

EVA is an adequate measure of shareholders' value creation but REVA is considered a theoretically superior measure for assessing whether a firm's operating performance is adequate from the viewpoint of compensating the firm's financiers for the risk to their capital. In a wide-ranging statistical study of

both EVA and REVA, it has been demonstrated that REVA statistically outperforms EVA in its ability to predict shareholder value creation.

Burkette and Hedley (1997)⁸¹ explained that the EVA concept can be used to assess organizational performance known as economic profit, it can be applied for profit companies, public sector organizations and non-profit organizations. EVA is being used by these entities in a variety of ways, including as a management communication base, as a measure of corporate and divisional performance, to tighten management, stockholder interests, and to emphasize the long-term benefits of industrial research and employee training. The profit can be calculated by determining the company's cost of equity capital, the weighted average cost of the firm, the adjusted operating income, the operating income plus back expenses providing a future benefit, assets employed on a book basis, the capital investment and the difference between the readjusted operation and the capital charge.

Dodd and Chen (1997)⁸² analyzed that Economic Value Added (EVA) has been acclaimed to the most recent and exciting innovation in company performance measures. Although the popular press reports numerous stories of successful EVA adoption, there has been little empirical evidence supporting the claim that EVA is a useful measure of corporate performance. This study examines the EVA performance of 656 US companies and compares the information usefulness of EVA with accounting earnings and residual income. The authors gave three conclusions from the examination: (i) although improving EVA performance is associated with a higher stock return, the association is not as perfect as claimed by EVA advocates; (ii) EVA is more powerful than traditional measures of accounting profit in explaining stock return; however, accounting earnings are still of significant incremental information value in addition to EVA; and (iii) not only is EVA similar to residual income in concept, they are empirically comparable.

Putnam (1997)⁸³ pointed out that the investors were bullish on US equities in 1995 and 1996 whereas, 1997 was a much more volatile year. In order to understand this phenomenon a framework of analysis such as EVA is extremely useful. EVA highlights five important factors to analyze the creation of shareholders' value: Net operating profit after tax and before interest, the weighted average cost of capital, investment in the business, the rate of return on investments, and the competitive advantage period.

Tully (1997)⁸⁴ brought to book EVA as a method for understanding as to what is happening to the financial performance of an organization. The paper presents the method for calculating EVA and also shows some pictorial presentations of EVAs of several companies like Bajaj Auto, Asian Paints, Procter and Gamble (India) Ltd., Siemens India. It has been concluded that EVA can be a better financial performance evaluation measure than other traditional measures.

Ethiraj (1998)⁸⁵ derived that in Indian market many companies are using capital inefficiently and thus destroying value. The tool to measure capital efficacy and economic value is Economic Value Added. Taking EVA as a tool of financial performance HLL and ITC stand at the top of the list. Also important is the relation between EVA and total operating capital employed (assets). This would show how much value the company has generated in relation to the assets it has deployed. It is argued that stock prices move up as a company adopts EVA as an internal performance criterion.

KPMG-BS Study (1998)⁸⁶ assessed top 100 companies on EVA, sales, PAT and MVA criteria. The survey has used the BS-1000 list of companies using a composite index comprising sales, profitability and compounded annual growth rate of those companies covering the period 1996-97. Sixty companies have been found able to create positive shareholder value whereas 38 companies have been found to destroy it. Accounting numbers have failed to capture shareholder value creation or destruction as per the

findings of the study. 24 companies have destroyed shareholder value by reporting negative MVA.

Anand et al., (1999)⁸⁷ revealed that EVA, REVA (Refined Economic Value Added) and MVA are better measures of business performance than NOPAT and EPS in terms of shareholders' value creation and competitive advantage of a firm. Since conventional management compensation systems emphasize sales/asset growth at expense of profitability and shareholders' value. Thus, EVA is a measure that shifts focus on an organizational culture of concern for value.

Bao and Bao (1999)⁸⁸ revealed the association between EVA and the value of the Indian firms, which are included in the COMPUSAT-Global Vantage database. The results of the study show that the EVA is positively and significantly correlated with the firm value. The results are consistent with the theory in that firms with EVA created value and firms with higher created value have higher stock prices. The study also reveals that explanatory power of EVA is lower than that of earnings and book value of firms under consideration.

Harihar (1999)⁸⁹ highlighted some myths regarding EVA. According to the author, Stern and Stewart were not the founders of EVA concept; rather it was first propounded by General Motors in early 1920's. Further, EVA calculations are not simple and need a lot of adjustments in the financial books. The author is also of the view that EVA cannot be used for comparison among companies of different industries. The next myth is that EVA figures can be manipulated to suit the needs of management. The last and most dangerous myth discussed is that the high EVA companies are cash rich. For looking at cash adequacy another measure called CVA (Cash Value Added) can be used.

Thenmozhi (1999)⁹⁰ explained the concept of EVA and compared it with some other traditional measure of corporate performance viz. ROI, EPS, RONW, ROE, ROCE, etc. He used the coefficient of determination to demonstrate that the traditional measures do

not reflect the real value of the shareholders, and thus EVA has to be taken into account to measure the value of shareholders' wealth. He has also described the concept of EVA in the Indian scenario with specific reference to companies like NIIT, Hindustan Lever and ITC. Thenmozhi has referred to some of the shortcomings of the concept of EVA but maintains that EVA is a better measure of corporate performance as compared to the traditional measures.

Banerjee (2000)⁹¹ attempted to find out whether Stewart's claim that market value of a company is equal to the discounted value of all future EVAs, holds good in the Indian context or not. For the purpose of the study the researcher selected a sample of 200 companies over a time span of four years (1994-95 to 1997-98). According to him, market value of firm is the function of two components viz., Current Operational Value (COV) and Future Growth Value (FGV). COV is equal to the book value of beginning invested capital plus the capitalized value of current year is EVA, whereas FGV represents the present value of all future expected future improvements. Based on the analysis of his data he comes to the conclusion that in many cases there is a considerable divergence between MVA and the sum total of COV and FGV.

Parasuram (2000)⁹² discussed the EVA position of 14 major public sector banks, 7 new private sector banks, 5 old private sector banks and 2 foreign banks. Among the strength indicators, deposit, return on assets, interest income as a percentage of total assets, interest yield spread as a percentage of total assets and EVA were considered. The study concludes that EVA is an important measure to judge a bank performance in view of the current scenario of banks. EVA has been found to have a high degree of correlation with ROA but not with any of the other measures. It signifies a fact that banks realize the importance of measuring EVA separately even if they do well on other fields.

Thampy and Beheli (2001)⁹³ studied the economic profits of commercial banks in the public and private sectors during 1990s. It also moves the benchmark of performance of banks from accounting profits to economic profits and shareholder wealth creation. The

study has been restricted to 12 commercial banks consisting of 4 public and 8 private sector banks. The period covered under the study is three years starting from 1995-96 to 1997-98 Beta has been calculated on the basis of daily stock prices data with Bombay Stock Exchanges BSE 200 index returns during January 1, 1997 to March 31, 1998 as the proxy for the market returns. The study shows that the performances of the Indian banks as measured by EVA are not very satisfactory. The results of the study reveal that the commercial banks under consideration have not created any positive EVA due to: (a) banks could be over capitalized and (b) returns are very poor from banking business.

Riceman, et al (2002)⁹⁴ argued that the EVA is performance measure that is being used by an increasing number of companies, but academic research on EVA is limited . In this study, researchers examined the effect of EVA on the performance of individual managers. Specifically, researchers observed whether managers on EVA-based bonus plans outperform managers on traditional accounting-based bonus plans. The results suggest that managers on EVA bonus plans who understand the EVA concept perform better than managers on traditional bonus plans. However, it is found that the increased in performance results from increased consistency or congruency in the manager's evaluation- reward process rather than from superiority of EVA as a performance measure. It is further established that the effect of EVA bonuses and EVA understanding differs depending on the area of the firm in which the manager is employed. This suggests that EVA may not be an universally appropriate base for reward systems.

Costigan and Linda (2002)⁹⁵ observed that the EVA is a new measure of performance that is purported to better align managers' incentives to that of the shareholders. Accordingly, firms that experience higher agency conflicts should be more included to use this performance evaluation system.

Additionally, the organizational strategy of the firm should influence the likelihood of employing EVA. One hundred and fifteen firms were identified as being adopters of

EVA. Logistic regression was performed to contrast these firms to a control group of 1,271 non-adopters. The results indicate that firms using EVA exhibit percentage of institutional ownership and a lower percentage of insider ownership than non-adopters. Prospector firms as defined by a higher ratio of research and development to sales tend to use EVA less than defender firms. Accounting adjustments are a focal point of the EVA formulation and the results presented in this study suggest that providing appropriate incentives may be more complex than the developers of EVA imply.

Mangala and Simpy (2002)⁹⁶ discussed that maximizing shareholder value had become the new corporate paradigm. Although shareholder's wealth maximization has been recognized by managers and researchers as the ultimate corporate goal, the maximum has gained a new dimension only in the recent years, due to the introduction of the concept of EVA. EVA is the most important driver influencing the market value of a share. So, if the company improves EVA by increasing its return on capital employed and lowering its cost of capital, its market value will increase. The study attempts to study the relationship between EVA and market value among various companies in India. The EVA of 15 companies among five industries (Fast Moving Consumer Good, Information Technology, Pharma, Automobile, Textile) has been computed. The results of the analysis confirm Stern's hypothesis and conclude that the company's current operational value (COV) is more significant in contributing to a change in market value of shares in Indian context.

Bhata and Dayal BhatNagar (2003)⁹⁷ in their study started that EVA cannot be used for comparison among companies of different industries. EVA figures can be manipulated to suit the needs of management. The last and most dangerous myth discussed is that the high EVA companies are cash rich. The author positive EVA figures do not ensure high financial performance. A new variable formed as EVAPRI (Economic Value Added Per Rupee of Investment) has been calculated by dividing the EVA figure by the invested capital of the previous year.

$$EVAPRI = EVA_t / \text{Invested Capital}(t-1)$$

It was considered proper to contemplate on a relative measure of EVA so that all companies in an industry could be viewed from a common platform, while comparing their respective EVA. The above results, industry wise standard deviations for EVA and EVAPRI were also computed. As expected, the distribution for EVAPRI was found to be much less dispersed in all industry groups as compared to EVA.

Shaveta Gupta (2007)⁹⁸ in his study value based performance Management: Creating value for shareholders. The basic objective of every organization is to create value for its owners. It must strive to at least provide dividend in the form of returns to those who have invested their money and expect a reward for such investment. If the companies are successful in generating value, then not only are the investor but also the society at large is benefited. It is the pursuit of value that directs the resources to be utilized optimally and productively. To assess the company's worth, not only the resource utilization but also the external performance systems is required. A distinct economic evaluation methodology is to be applied to the different operations of a company. A few of such innovations are Economic value Added (MVA) and value scorecard.

Manor Selvi. and Vijaya Kumar.A(2007)⁹⁹ studied the performance of Indian Automobile industry : Economic Value Added (EVA) approach as maximizing shareholders value is becoming the new corporate standard in India. The company has been successfully able to create value for its shareholders on comparing industry wise composite frequencies for EVA for all years; it was found that there has been a significant increasing trend in EVA of the Automobile Industry firms which means that companies have a positive trend to improve their firm's value. A majority of the companies are still not prepared to enjoy the EVA technique to evaluate their financial performance because of certain inherent difficulties associated with the computation.

Vijaya Kumar.A and Manor Selvi.A. (2008)100 the present study makes an attempt to find the relevance of Stem and Stewart's claim and the hypothesis that MVA of the firm is largely positive associated with its EVA generating capacity in Indian context. The study also portray the temperament of association between MVA and other selected traditional financial variables like Earning Per Share(EPS), Return On Capital Employed (ROCE), Net Operating Profit After Tax (NOPAT) and Return On Net Worth (RONW). The result of the study reveals that supporting Stem and Stewart's claim positively associates the relationship between MVA and EVA. Further, the results revealed ROCE as the most significant related variable with MVA followed by EPS and EVA. The study concludes that EVA and MVA itself positions in an appearance as the most outstanding factors in the definitive analysis as having a decisive on a firm's value.

Research Gap

From the above review of empirical works it is clear that different authors have approached performance appraisal in different ways in varying level of analysis. These different approaches helped in the emergence of more and more literature on the subject over time. It gives an idea on extensive and diverse works on performance appraisal. It has been noticed that the studies on financial performance in various sectors provide divergent results over the study period. The main reason for the divergence in the results is the different in the method used for the measurement of factors specially profitability, solvency, liquidity, asset productivity, capital structure and growth rate in the operating performance and social performance all the studies aimed to analyse the financial performance in Indian industries with number of factors. Very few studies appeared which used economic value added (EVA) to explore the financial performance of the industries.

From the synoptic appraisal of afore mentioned findings on economic value added, it is evidently clear that the concept has originally emerged in the west and later turns out to

be time-honoured across the world. Many researchers have applied sophisticated econometric tools for accessing the impact of EVA concept on corporate financial performance. Starting from stern (1990) to Bhata et al., (2003) it may be revealed that Indian researchers started contributing to this field in 1997. In the beginning, the researcher wrote on the conceptual aspects of EVA but later some empirical studies have also been accomplished. However, as a matter of chance, no study has been conducted at such a colossal extent in India and therefore, to conduct a study of automobiles companies for the period of 11 years. There is no denying fact that early researchers have made valuable contribution, yet their work had some specific restraints particularly relating to the raw data and its computational course of action. The present study is an attempt to offer a detailed examination of the EVA with special reference to Indian automobile industry.

It has been noticed that review of empirical works on profitability gives an idea on extensive and diverse works on profitability. It facilitates to understand the various structural and non-structural variables that determine profitability. It has been noticed that studies on the profitability analysis in various industries used the variables like seller's concentration advertising intensity, economics of scale, leverage, profit variability, firm growth and size. In the late 1990's few studies appeared which used the quantum of sales, return on investment and appropriation of profits to explore the profit variation of the manufacturing industries. Researchers have verified and extended the results over the years.

The survey of the existing literature indicates that so far no specific work has been carried out to examine the financial appraisal of Indian automobile industry in the manufacturing sector, although the performance of such a study cannot be under estimated, the present study is an attempt in this direction and therefore, aims to enrich the literature of financial performance relating to Indian automobile industry. Further, this study is intended to employ different sophisticated statistical and economic

techniques before qualifying any aspects of performance appraisal for wider acceptability and appreciation. The present study is a humble attempt in this regard.

From the above discussion, it is clear that the different authors including economists, financial theorists, management scientists and practicing business executives have approached performance appraisal in different ways and at varying level of analysis. Though there are various approaches, only a few of them can be considered in this study. The approaches that are included in the study cover analysis of important profitability ratios, analysis of profitability trends, determinants of profitability, analysis of financial position, measuring the long-term and short-term solvency and economic value added analysis in the Indian automobile industry.

From the above review of empirical works it has been clear that different authors have approached financial appraisal in different ways in varying level of analysis. These different approaches helped in the emergence of more and more literature on the subject over time. It gives an idea on extensive and diversified works on financial appraisal. It has been noticed that the studies on financial performance in various sectors provide divergent results over the study period. The main reason for the divergence in the results is the different in the method used for the measurement of factors specially profitability, solvency, liquidity, asset productivity, capital structure and growth rate in the operating performance and social performance all the studies aimed to analyse the financial performance in Indian industries with number of factors.

A number of studies have been made on human resource, marketing and production management in public enterprises and also about the causes of poor performance of majority of public enterprises but no study is being made on the financial performance of a public sector trading company. Hence, in the present study, the Researcher has made an attempt to evaluate the financial performance of one of the major Automobile Sector company i.e. Maruti Udyog Limited. The study related to the evaluation of financial performance of public sector minerals and metals trading company which has not been

explored till now. Through this study, the Researcher has attempted to fill the gap of research in this specific area of study.

Objectives of the Study

The core objective of the study in changing business environment is to understand and analyze qualitative and quantitative performance of Maruti Udyog Ltd. and to investigate their risk and returns factors, their market position, their collective impact on profitability and to come up with the best and worst performing company by using modern performance evaluating techniques and later ranking them according to their achieved performance. Further, for better future growth, will suggest rational and scientific approach for companies to assess and analyze their intrinsic value, practical risk, exposure and to visualize competitive and comparative efficiency and their profitability position which can be considered as a judicious recommendation for improvements of their performance.

The objective of the study is to evaluate, analyze and interpret the Financial Performance of Maruti Suzuki Ltd since 2000 are:

1. To review the historical background and growth of Maruti Udyog Limited
2. To evaluate the liquidity, solvency and profitability position of the Maruti Udyog Ltd.
3. To evaluate the financial strength of Maruti Udyog Ltd
4. To propose ways and measures to improve financial performance of Maruti Udyog Ltd.
5. To make a comparative and analytical study of performance Evaluation of Automobile Industry in India.

Hypotheses of the Study

A hypothesis is a tentative statement which reveals the relationship among two or more variables. It is a specific and testable prediction about what you expect to happen in the study. It is a proposed explanation for a fact. It explain in material terms what you expect will happen in a certain situation. The hypothesis of the study has been prepared as under:

Hypotheses of the Study: The followings are the hypotheses of the study:

1. H01: There is no significant relationship between Size, Growth and Profit of Maruti Udyog Ltd. since 2000
2. H02: there is no significant difference among the selected automobile companies in regard to their financial performance.
3. H03: there is no significant difference in Sales Growth of Maruti Udyog Ltd.

Limitations of the Study

There are some limitations of the study which are generally found in all studies conducted at human level. The main limitations of the present research are as follows:

1. The study is based on secondary data obtained from the published annual reports of MUL and as such its finding depends entirely on the accuracy of such data.
2. There is non-availability of some required financial data for study has restricted the size of the sample.
3. The present study is largely based on ratio analysis which has its own limitations.
4. The analysis of financial statement of a business enterprise gives diagnostic indicators. As an external analyst, obviously has no access to internal data. Therefore, inside view of the organization cannot be characterized in this study.

5. Only secondary data (quantitative financial data) have been used for the performance evaluation of sampled units.
6. Only ten years period has been taken with limited no. of financial indicators.
7. Whatever limitations the published data of sample companies consists, the study also suffers with the same.
8. Every living and Non- living on this world is its own limitation which restricts the usability of that thing. The same rule applies to this research work. The main limitation of the study as it is a new and developing concept, so it is not possible for all new and developing companies.
9. A Study is undertaken by individual researcher therefore all the limitation of the individual researcher exists here also.
10. It is secondary data based study, so the limitations of the secondary data reveals with this study.
11. As it is a new concept, it becomes hard task and through for accountants and accounting practitioners for fulfilling all formalities.
12. Profitability is affected by many factors, internal as well as external, but the researcher is taking into consideration only some factors which are relevant to study.

Parameters for Evaluating Performance Evaluation

The criteria of evaluation of performance vary from one unit of organization to other. The following Financial Parameters have been used to evaluate the performance evaluation of MUL and HMIL:-

1. Liquidity Ratio (To know the short term financial position of the companies)

2. Profitability Ratio (To know the overall performance of the companies)
3. Efficiency or Activity or Turnover Ratio (To know the efficiency of utilizing Company's assets)
4. Leverage or Capital Structure Ratio (To know the long term financial position of the Sampled Units.
5. Market Value Ratios (To know the exact position of the companies in the market)
6. Average Growth Rate, Sales, Market Capitalization, Research & Development, Cash Flow.

Need of the Study

The present study tries to find to make an in-depth analysis of the performance in Automobile Company (MUL) from all view point. ¹Financial statement analysis is, of course, the underlying purpose of preparing financial statements. Everyone who looks at your financial statements will be automatically performing some form of analysis. Banker will quickly analyze them to determine your capability for paying back a loan. Your investor(s) will always perform a financial statement analysis to determine if your business is a good investment, or whether you have been performing according to plan. Your suppliers will analyze your financial statements to determine your credit worthiness and so on. Under the present study, financial performance process like execution, strategies and implementation contributing towards profitability, Liquidity, Efficiency and Solvency so that the business can be carried out consistent growth for overall success.

¹ <http://www.business-solutions-and-resources.com/financial-statement-analysis.html>

Nature of Study

The present study is primarily concerned to the evaluation of financial performance of Maruti Udyog Limited which is one of the largest automobile companies of India. Nature of Data the data used for the analysis is secondary in nature. The secondary data have been extracted from the official website of MUL. A number of Magazines, Newspapers, Periodicals and other related published sources have also been used for the present study. Period of the Study is of ten years from 2000-01 to 2009-10.

Tools used in the Study

In order to measure the impact of sales on other variables i.e. Profit after Tax, Net Worth and Earning per Share, the researchers have adopted statistical tools like descriptive statistics, correlation and regression analysis. Graphical presentation is also given to understand the overall scenario of MUL. All tools have been applied with the help of Statistical Package of Social Sciences (SPSS).

Rationale of the Study

The financial information is most important aspect that based on analysis and take important decision for the future development of the business. It is needed to forecast, compare and assess the organisation ability to earn. The reporting of accounting and financial information is through the financial statement. It holds a treasure of information that if as it should be evaluate and take to means valuable within reaches of purposes, which selection from analysis of short- term liquidity situation of the firm to broad range of assessment of SWOT analysis of the firm in different situation.

The present study is to evaluate the overall financial performance of Maruti Udyog Ltd has since last 10 years. In the present study, the Researcher deals for the financial evaluation and performance of different functional and financial sections.

Significance of the Study

Performance appraisal is of special importance in industries and automobile industry is one such industry. From the point of view of the socio-economic development of the country, automobile industry is significant enough in terms of investment and employment. The sales and profitability function in automobile industry differs from that of other industries. Even though many studies in the direction have been conducted, the present one would be of greater significance to many because it would help to understand the pattern and the structure of financial variables of one of the leading company of automobile sector. The change in the economic policy of the government certainly has made impact on the performance of corporate units in India. A need at the present juncture has therefore created the necessity to study the impact of such changes on the performance of corporate sector; hence the research problem has to be changed to ‘An Empirical Study of Financial Performance of Automobile Sector of India: A Case Study of Maruti Udyog Limited (MUL)’. The particular topic has been selected for the study because continuous effort has been made to examine the changes that might have occurred in the performance of automobile industry due to the changes in the government policy.

As it has already been discussed in the preceding paragraphs that Maruti Udyog Limited is one of the largest automobile sector companies of India and it plays very significant role in Indian economy. So it can be said that large investments blocked in this company undertaken for the study for the research purpose, making it one of the reason for the present study. There is a need to study the industries internal efficiency which ultimately shall determine the overall industrial development in future. The significance of the proposed project as here as under:

As a major automobile sector company, Maruti Udyog Limited plays very significant role in Indian economy. The financial performance evaluation will give an outcome about the workings and performance of this company which will be helpful for the company itself

in order to enhance its performance and operational activities. Large populations of the country have started to invest their money in the share markets. This financial analysis will be helpful to them in making proper decisions in investing their money in the shares of this company. An analysis has been done on various aspects like liquidity, solvency, profitability, assets utilization thus the relevant information can be used by stake holders in decision making.

Chapter Plan of the Study

The present research is divided into five different chapters.

The first chapter entitled “**Historical and Conceptual Background of the Study**” dealt with the introductory part of the research topic along with the Historical and Conceptual study related to the Maruti Udyog Limited.

The Second chapter entitled “**Review of Literature**” deals with the problem statements and review of available literature followed by research gap, objectives, hypotheses, need, importance and limitations of the study

The Third chapter entitled “**Performance Evaluation of Maruti Udyog Limited**” provide the details of financial performance evaluations of Maruti Udyog Limited in regard to sales profit, efficiency and comparative performance of the selected companies in the automobile industry of India.

The Fourth chapter entitled “**Analysis and Interpretation**” is the main part of the present research in which data analysis and interpretation has been done using different accounting, financial, statistical tools and techniques with the help of SPSS.

The Fifth chapter entitled “**Summary of conclusions, suggestions and findings of the study**” is the last chapter of the research work and it provides concluding remarks, findings and suggestions of the study which is followed by future research directions.

Research Methodology of the Research

A research design is a definite plan for obtaining a sample from a given populations. Research design means a sketch or a drawing of a research's structure. It comprises a series of prior pronouncements that, taken together, provide a road map for carrying out a research. The present study is undertaken to make an evaluation of the financial performance of one of the major Indian Automobile Sector i.e. Maruti Udyog Limited. The performance of the company is analyzed on the basis of sales trend, liquidity position, profitability analysis, financial structure, and financial performance. Research methodology comprises of research design, sample design, sources of data, selection of data, period of the study and techniques used for analyzing the data. The methodology used for the study is here as under:

Sample of the Research

Keeping in view the scope of the study, it is decided to evaluate the financial performance of Maruti Udyog Limited. But, owing to several constraints such as non-availability of financial statements or non-working of a company in a particular year etc., it is compelled to restrict the number of sample companies to only one automobile company i.e. Maruti Udyog Limited (MUL). Presently, forty eight companies are operating in the Indian automobile industry. Out of these only one company is selected for the study. The most preferred and trusted Indian Automobile Sector Company has been selected to see at what extent it is profitable, solvent, liquidity and market position.

Nature and Sources of Data

The present study will be based on secondary data. The data will be obtained from the annual reports of Maruti Udyog Limited. Besides this, relevant secondary data have also been collected from BSE Stock Exchange Official Directory, CMIE Publications, Annual Survey of Industry, Business Newspapers and Reports on Currency and Finance, Libraries of Various Research Institutions as well as through Internet. Numbers of

Magazines, Journals, Newspapers, published research reports, website of the company as well as other concern publications have also been taken into consideration. The main sources of the secondary data are as follows:

1. Published Annual Reports of Maruti Udyog Limited.
2. Magazines, News Papers and Journals.
3. Websites of Maruti Udyog Limited and Bombay Stock Exchange.
4. Relevant publications of Maruti Udyog Limited.

Rationale of Chosen Company as a Sample

Maruti Udyog Limited (MUL) is one of the largest Automobile Sector companies of India. It holds approximately 37 per cent share in total Automobile industry and manufactures a wide range of consumer vehicles especially consumer cars for middle class people.

Methods to be used for Data Collection

The data for the purpose of research will be collected from different sources. Annual reports and other relevant information of the company will be collected from the head office of Maruti Udyog Limited as well as through internet. A number of journals, magazines, newspapers, books etc. will be taken into consideration for the purpose of research.

Tools and Techniques to be used for Data Analysis

The study will be conducted on a major automobile sector company. For the purpose of financial analysis of this company, accounting, financial as well as statistical tools and techniques has been taken into consideration. Short term solvency position of Maruti Udyog Limited has to be checked with the help of liquidity ratios, profitability position will be examined through Gross Profit and Net Profit Ratio. Solvency position will be

assessed through Debt Equity Ratio and Interest Coverage Ratio. Value generation is the most concerned area for the investors, management as well as other stakeholders of the company and for this purpose Economic Value Added will be calculated. The financial performance reflected by the market performance which has to be tested through Market Value Added along-with their graphical presentation. Along with the usual statistical tools such as tables, percentages, mean, standard deviation, coefficient of variation Karl Pearson's method for correlation will be applied for analyzing the data which will helps in arriving at some valuable conclusion. The main tools and techniques are as follows:

The present study the researcher has done the analysis to evaluate the financial performance of Maruti Suzuki since 2000-01 which is establish for the analysis of financial statement Profit & loss account, balance sheet and other statements have been recast and presented in compact shape. For the present study the researcher has applied the following tools and techniques for the purpose of analysis of data:

Accounting Techniques

The researcher has used the ratio analysis technique to interpret the data. The ratio analyses are used as an accounting technique, the present study covers the profitability, liquidity, financial leverage and activity analysis.

Accounting Ratios

Liquidity Ratios

Profitability Ratios

Solvency Ratios

Turnover Ratios

Common Size Statement Analysis

Comparative Statement Analysis

Statistical Techniques

The available data has been analyzed with the help of MS-Excel and SPSS 20.0.

- Descriptive Statistics
- One way ANOVA
- Regression Analysis
- Correlation
- Graph and Diagram

Conclusion

No one could ever imagine of car before 1478, when Leonardo da Vinci first designed the “Self-Propelled Car”, and today, none of us can imagine our world without that machine, i.e. the automobile. The history of automobile itself expresses about the development that it brought into the world along itself. The Indian Passenger vehicle market is the 7th largest market in Asia and 10th largest market in the world in terms of volume. As per SIAM, passenger vehicles held a 15.07% domestic market share in the year 2011-12. The automobile, as we know it was not discovered in a day or by any single maker.

The pasts of the automobile replicate an achievement that took place around the globe. Automobile products are the second principal optional buying made by a consumer, after household acquisition, the affluences of the automobile industry are closely connected with that of the common progress of the economy, not reusable incomes and consumer sureness.

Around 80 years ago, the Indian Automobile Market was nothing because we did not have any automobile manufacturer in India. There were some imported cars in India. After the independence of India, government had started efforts to develop an automobile industry. In the beginning of automobile industry in India, the progress rate was very slow. But now, the situation is relatively different. We have very large market for automobile industry. Currently, India has amongst the lowest vehicle solidities globally at

11 cars per thousand persons and 32 two-wheelers per thousand persons. This is very low as compared to other comparable economies.

The globalization of the auto industry increasingly fosters the formation of new alliances and the entry of new manufacturers. In the context of the auto industry, globalization has never proceeded at a faster pace not only in terms of sourcing of complete products and components, but also in terms of markets.

As a result, the cast of players in the world auto industry is ever increasing. The study based on performance of Maruti Udyog Limited since 2000 has been done by the researcher as this company is one the trusted and largest car maker in India. The researcher has started the work with Statement of Problems, Review of Literature, Research Gap, Objectives of the Study, Hypotheses of the Study Nature of Data, Sources of Data, Significance of the Study, Tenure of the Study, Variables used in the Study, Tools and Techniques used in the Study and Limitations of the Study in this chapter and the performance of the Maruti Udyog limited will be done separately in the next chapter.

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Third Chapter

Performance Evaluation of Maruti Udyog India Limited

- **Introduction**
- **Indian Automobile Industry**
- **Performance of Maruti Udyog India Limited**
- **Domestic Sales Maruti Udyog India Limited**
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Third Chapter

Performance Evaluation of Maruti Udyog Limited

Introduction

The detail of review of literatures, objectives, hypotheses, significance, need research methodology and limitations have been discussed in the previous chapter by the researcher. Now, in this chapter researcher is discussing the performance of Maruti Udyog Limited in detail. The automobile sector is a significant contributor in national economy of any country and it is also an indicator of the living standard of the people of a country. Being a developing country, there are a number of domestic and foreign automobile companies working in India. Maruti Suzuki is one of the leading companies of automobile sector, accounting for about 50 per cent of the total sales of the industry in 2012. The market share of Maruti Udyog Limited in passenger car segment in Domestic Market is about 37 per cent in 2014. The company has introduced a variety of brands of passenger cars to cater the needs of all segments of market. The company has received many awards and achievements through continuous innovations and technical know-how. The present study is an attempt to evaluate the financial performance of Maruti Udyog Limited which is one of the largest automobile sector companies in India. The financial performance has been evaluated by exploring the impact of Domestic and International Sales on Net Worth, Profit after Tax and Earning per Share of MUL.

Indian Automobile Industry

History of Indian automobile industry shows that it has grown with leaps and bounds since 1898, a time when a car had touched the Indian streets for the first time. But now India is in verge to rewrite history in different conditions as it is home to 40 million passenger vehicles and Indian manufactured cars and other automobile products are touching other nation roads. Presently Indian automobile industry is regarded as largest and second fastest growing industry after China in the world with annual production of over 3.9 million units. Its passenger cars and commercial vehicle manufacturing industry ranked sixth largest in the world. One of the best things happen for the Indian automobile market in the recent years was its improvement in the export sector. In the year 2003-04 for the first time in Indian history vehicle worth more than 1 billion USD were exported with the growth rate of 56%. In the year 2009

India emerged fourth largest exporter of passenger cars, in 2010 with the production of more than 3.7 million automotive vehicles with an increase of 33.9% India became third largest exporter of passenger cars. It contributes 4% of the national GDP and accounts for 5% of the Indian industrial output. With employing 13 million people directly or indirectly it has become one of the major employment generators in the country, with the present growth trend it is expected that employment will double by 2016.

The key factor behind this upswing and even growth of auto industry is liberalization of government norms supportive policies measures for foreign investment, relaxation of foreign exchange and equity regulations, reduced tariffs on imports, technology import, banking liberalization and convenient EMI. These supportive environments fueled the Indian automobile industry and it grew at a compound annual growth rate (CAGR) of 22 percent between 1992 and

1997. In 2003-04 it grew at the rate of 15.1%, in 2006-07 it grew at a rate of 16.07 %. In 2007-08 cumulative growth of the passenger vehicles was 12.17 percent. Passenger cars grew by 11.79 %, Utility vehicles by 10.57 % and multipurpose vehicle grew by 21.39 %. During the period

Automobile export registered growth of 22.30% in which commercial vehicle and passenger vehicle export grew by 19.10% and 9.37% respectively. With a number of foreign brands joining ranks with domestic manufacturers, the Indian consumer is now flooded with choice. Further market demand of heavy commercial vehicles and improved overall vehicle export bolstered healthy rise in its sales and consolidated 2nd rank of auto component industry in the world. In 2009-10 Indian auto industry produced overall 4,200,556 vehicles, exported 505,920 vehicles and sold 4,188,932 vehicles.

The increasing Indian car export facilities Indian automobile industry in two ways. Firstly it promoted economic growth of the industry and secondly it lifted image of Indian automobile industry and its manufacturing infrastructure and capability at global level which boosted confidence among foreign giants to open their manufacturing units in India and ultimately contributed direct employment. At present Indian auto industry has significant number of companies with quality certifications & recognition like ISO 9000: 552, TS 16949: 438, QS 9000: 33, ISO 14001: 204, OHSAS 18001: 95, JIPM: 3, Deming Award: 11, TPM Award: 15, Japan Quality

Medal:1, Shingo Silver Medallion: 1 and have ACMA membership of more than 600. The auto component Industry turnover also have upward trend in growth, in 2004-05 (29%), in 2005-06 (38%), 2006-07 (25%), 2007-08 (20%), 2008-09 (2%), 2009-10 (20%). It registered growth in export which in 2004-05 were (34%), in 2005-06 (46 %), 2006-07 (8%), 2007-08 (32%), 2008-09 (8%), 2009-10 (NA). In import growth rate in 2004-05 were (33%), in 2005-06 (30%), 2006-07 (45%), 2007-08 (45%), 2008-09 (30%), 2009-10 (20%). In Investment growth rate in 2004-05 were (21%), in 2005-06 (17%), 2006-07 (23%), 2007-08 (33%), 2008-09 (1%), 2009-10 (23%). According to the prediction of Society of Indian Automobile Manufacturers that by 2015 annual vehicle sales will increase to 5 million and more than 9 million by 2020. By 2050 with approximately 611 million vehicles India will be having largest number of cars in the world.

With increasing export and domestic market Indian automobile industry is riding high on success. But success has to solve many existing complexities and challenges which are hampering its growth to a great extent. Indian poor road conditions, heavy pollution, increasing road accidents, political unrest, and industrial and workers' rights are some serious impediments in the way of its growth and need improvement and with permanent solution for better future and overall growth. However, despite the presence of foreign brands, the domestic companies are dominating force and are the biggest, Maruti Udyog and Tata vehicles share the top honors for passenger and commercial vehicles respectively.

In this study detailed analysis of Indian automobile industry is carried out by using financial analysis tools. In order to better understand the performance of the industry we have made comparative analysis to two players Maruti Suzuki and Tata Motors. The study is divided into five segments. The first segment deals with abstract and introduction. The second segment deals with objective, methodology, applied tools and techniques of the study. The third segment deals with literature review. The forth segment deals with analysis and interpretation and fifth segment deals with conclusion, recommendation and references.

At the time of independence, the Indian car market was considered as a market for imported vehicles. The earlier period was very tough for growth of Indian automobile sector due to strict licensing and restrictive tariff structure. The Indian automobile industry started to grow after 1970, but that growth was mainly driven by tractors,

scooters and commercial vehicles. After 1980, the Indian automobile sector saw drastic but historical change. In order to modernize the Indian automobile Industry, Maruti Udyog Limited was incorporated in February 1981. In October 1982 the company signed license and Joint venture agreement with Suzuki Motor Corporation of Japan. After collaboration, in December 1983, the company launched its most awaited Maruti 800. The company launched its multi-purpose vehicle; Omni in November 1984. The company launched Gypsy in December 1985. In the year 1987, the company forayed into the foreign market by exporting first lot of 500 cars to Hungary. In the year 1990 the company launched India's first sedan Maruti 1000 and Esteem in November 1994. In the year 1997 the company started Maruti Service Master as model workshop in India to look into after-sales service. In year 2000, the company launched a call centre. This was the first time a car company had ever launched a call centre in India. In September 2000 the company launched its highest selling model Alto. In the year 2002, Maruti launched Maruti finance to offer financial services like extended warranty and finance for car insurance. In 2002, Suzuki Motor Corporation increased its stake in the company to 54.2 percent. The company launched its MPV Grand Vitara in April 2003. Maruti launched its most popular & successful hatch-back Swift in 2005. Maruti launched diesel version of Swift in January 2007 & in May 2007 the company launched its sedan SX4 in Indian automobile market. In July 2007 Maruti Udyog Limited was renamed Maruti Udyog Limited. In March 2008, the company launched Swift Dzire and in November 2008 the company launched A-Star; equipped with K-series engine. In May 2010, Maruti Suzuki launched its stylish vehicle Ritz. In the year 2011, the company launched its luxury sedan Kizashi and with an objective to fulfill the needs of larger family size consumers, on 12 April 2012 the company launched its MPV Ertiga. MUL launched Wagon R Stingray a Hatchback car in 2013, and its latest Launching is Suzuki Ciaz a sedan car in 2014.

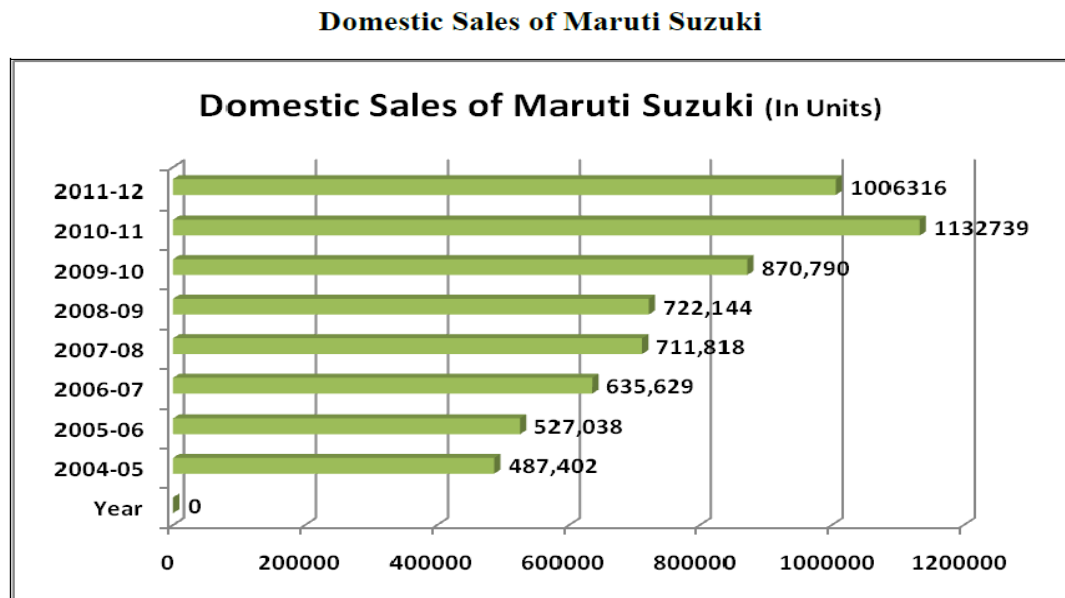
Maruti Suzuki is a joint venture between Government of India and Suzuki Motors Corporation, Japan. It has a distinction of country's largest car manufacturing company and command the car industry market with a market share of over 80%. To capitalize growing demand world giant automobile manufacturers have entered Indian market with confidence and posing threat to a market leader Maruti Suzuki.

Performance of Maruti Udyog Limited

Domestic Sales

Maruti Suzuki is the only Indian company who has crossed the 10 million sales mark since its inception. The company has the largest sales and service network amongst car manufacturers in India. In the month of October 2012, Maruti Suzuki reported 85.46 percent increase in total sales at 1,03,108 vehicles, in same month the company had recorded domestic sales of 96,002 vehicles compared to 51,458 vehicles in 2011. In November 2012, the company sold total 1,03,200 vehicles and in the same month last year, the company sold 91,772 vehicles. We can see the performance of Maruti Suzuki with respect to Domestic Sales through following graph.

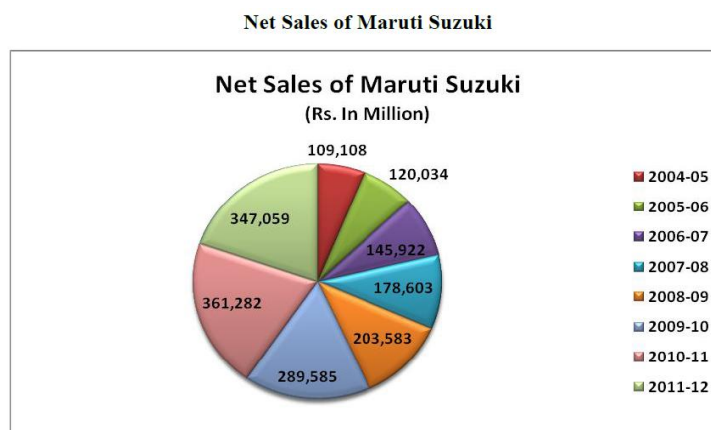
Chart 3.1 Domestic Sales of Maruti Suzuki



Source: <http://www.marutisuzuki.com>

From the above chart it is revealed that the domestic sales of Maruti Udyog Limited in year 2009-10 was 8,70,790 vehicles i.e. a growth of 20.58 percent than domestic sales of 2008-09. In year 2011-12 Maruti Suzuki sold 1006316 vehicles i.e. a negative growth of (-) 11.16 percent over 2010-11. In year 2010-11, the company sold 1132739 vehicles. The following pie chart describes the net sales of Maruti Suzuki during 2004-05 to 2011-12.

Chart 3.2 Net Sales of Maruti Suzuki



Source: <http://www.marutisuzuki.com>

From the above pie chart it is revealed that Maruti Suzuki's total Net Sales in year 2004-05 was 109108 million whereas the net sales in year 2005-06 was 120,034 million. In year 2010-11, Maruti's total net sale was 361,282 million whereas the total net sale in year 2011-12 was 347,059 million. In year 2011-12 Maruti Suzuki's net sale was decreased by (-) 3.93 percent over 2010-11.

Export Sales of Maruti Suzuki

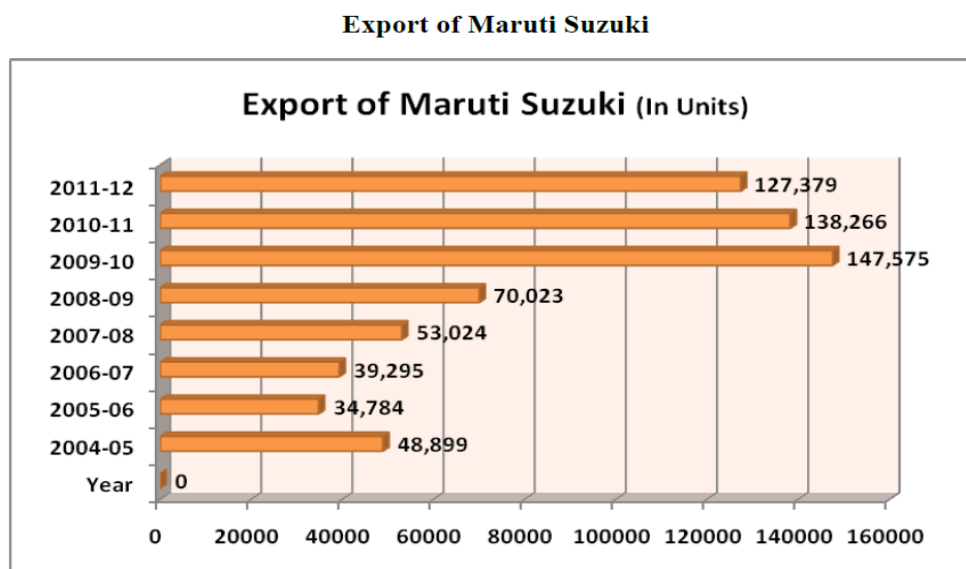
Maruti Udyog Limited is exporting to 98 countries in Europe, Asia, Latin America, Africa and Oceania. Some leading overseas markets of Maruti include Germany, Netherland, France & UK. Presently the company exports various models like A-Star, Ritz, Estilo and Maruti 800. In year 2009-10, Maruti Suzuki clocked export sales of 147,575 units its highest ever and in 2011-12, the company exported 1,27,300 units. The following are the top ten export destinations of Maruti Udyog Limited.

Table 3.1 Top Ten Export Destinations of Maruti Suzuki

Top Ten Export Destinations of Maruti Suzuki		
Sr.No	Country	Vehicles Exported (In No)
		(As on 31 March 2010)
1	Netherlands	78,514
2	Algeria	68,506
3	Italy	52,250
4	United Kingdom	48,641
5	Chile	45,029
6	Germany	38,423
7	Srilanka	30,078
8	Hungary	22,924
9	Nepal	22,368
10	Egypt	18,523

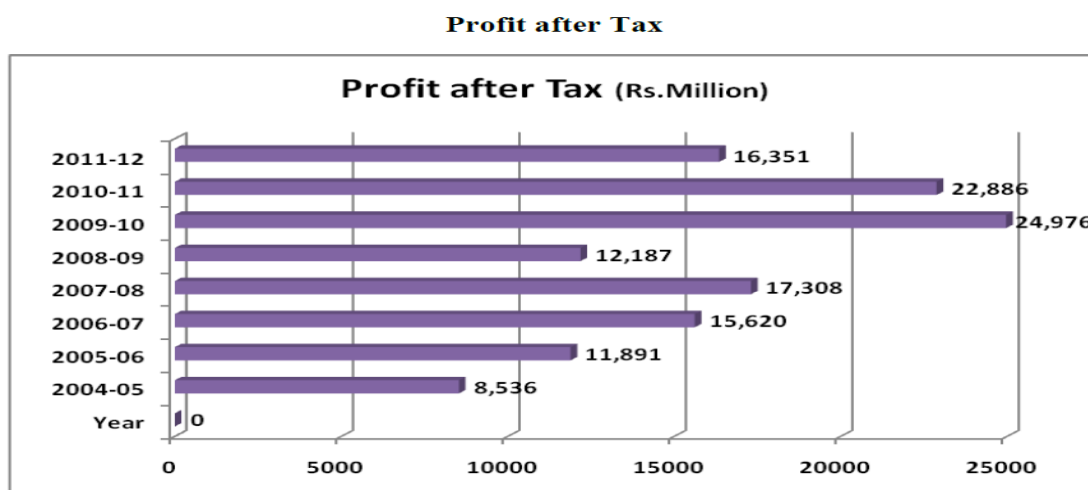
Source: <http://www.marutisuzuki.com>

The following chart clearly focuses on Export of Maruti Suzuki during 2004-05 to 2011-12.

Chart 3.3 Exports of Maruti Udyog Limited

Source: <http://www.marutisuzuki.com>

It is revealed from the above chart that the export of Maruti Suzuki in year 2009-10 was 147,575 vehicles whereas the company exported 138,266 vehicles in year 2010-11 i.e. the year 2010-11 saw negative growth by (-) 6.30 percent over 2009-10. The year 2011-12 had also seen a negative growth by (-) 7.87 percent over 2010-11. The year 2009-10, recorded marvelous growth of 110.75 percent over 2008-09. The following graph stated the economic performance of Maruti Udyog Limited during 2004-05 to 2011-12. The graph depicts the profit of company after tax.

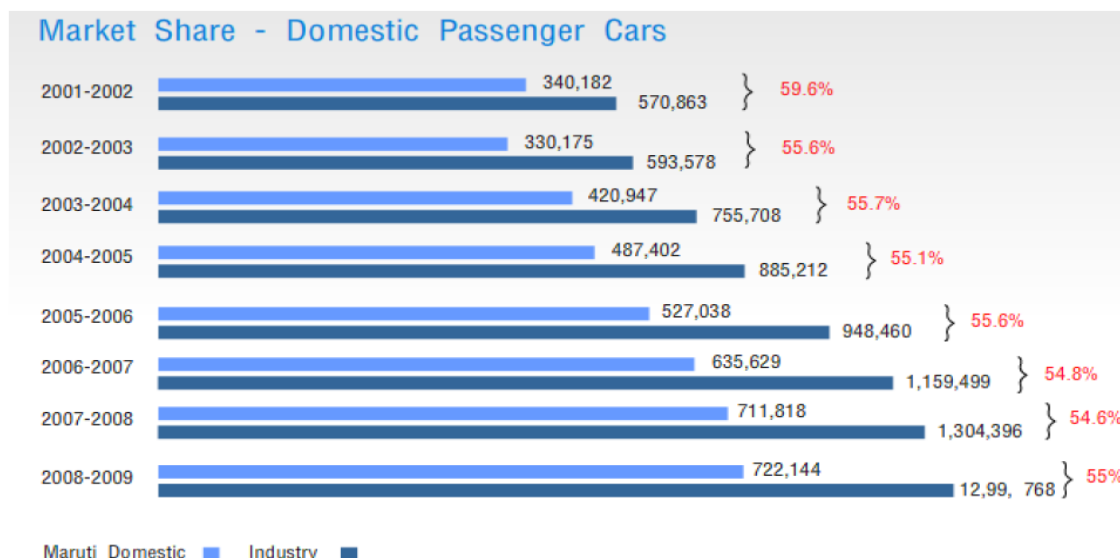
Chart 3.4 Profits after Tax of Maruti Udyog Limited

Source: <http://www.marutisuzuki.com>

It is amply clear from the above chart that Maruti's profit after tax in year 2004-05 was 8536 million whereas after 2004-05, the profit of Maruti Suzuki gradually increased till 2007-08 as the year 2008-09 recorded less profit over 2007-08. From

2009-10, Maruti Suzuki recorded less profit. In year 2009-10, Maruti's profit after tax was 24,976 million whereas in year 2010-11 the company's profit reached to 22,886 million. In year 2011-12, Maruti's profit after tax was not remarkable. In this year the company recorded 16,351 million profits.

Chart 3.5 Market share of domestic passenger car of Maruti Udyog Limited



Overview of Net Income & Profit after Tax

The performance of Maruti Udyog Limited & Hyundai Motors India Limited regarding Net Income & Profit after Tax during **1997-2008** are summarized below-

Table 3.2: Net Income of Maruti (Annual) (Rs. in Crore)

Year	Maruti Suzuki India Limited
Mar 1997	6,042.77
Mar 1998	6,417.05
Mar 1999	6,184.78
Mar 2000	7,266.1
Mar 2001	6,930.4
Mar 2002	7,305.2
Mar 2003	7,531.7
Mar 2004	9,336.1
Mar 2005	11,228.1
Mar 2006	12,576.6
Mar 2007	15,250.5
Mar 2008	18,490.7

Source: Centre for Monitoring Indian Economy, Prowess Database (2009)

From the above table it was revealed that the net income of Maruti Udyog Limited has gradually increased except year 1999 & 2001. In year 1999 the company registered negative growth of (-) 3.63 percent over 1998. It was observed that in year

2001, Maruti Suzuki's net income was 6,930.4 crore where as in year 2000, Maruti's net income was 7,266.1 crore i.e. in year 2001, the company's net income decreased by (-) 4.62 percent. In year 2008, Maruti Suzuki recorded growth of 21.24 percent over 2007.

The following table highlights the profit after tax of Maruti Udyog Ltd 1997-2008.

Table 3.3: Maruti Profit after Tax (Annual) (Rs. in Crore)

Year	Maruti Suzuki India Limited
Mar 1997	510.07
Mar 1998	651.91
Mar 1999	522.99
Mar 2000	330.1
Mar 2001	-269.4
Mar 2002	104.5
Mar 2003	146.4
Mar 2004	542.1
Mar 2005	853.6
Mar 2006	1,189.1
Mar 2007	1562
Mar 2008	1730

Source: Centre for Monitoring Indian Economy, Prowess Database (2009)

The above table disclosed that, in year 1999 Maruti Suzuki's profit after tax was 522.99 crore whereas in year 1998, Maruti's profit after tax was 651.91 crore i.e. in year 1999, Maruti Suzuki's profit after tax decreased by (-) 19.77 percent over 1998. It was revealed that, in year 2001, Maruti Suzuki's profit after tax was (-) 269.4 crore. In year 2006, the company registered growth of 39.39 percent over 2005 whereas the year 2008 recorded growth of 10.75 percent over 2007.

Overview of Production

The performance of Maruti Udyog Limited during 1997-2008 is summarized below-

Table 3.4: Vehicle Production of Maruti Suzuki (Financial Year) (In Numbers)

Category/ Segment	1996-97	1997-98	1998-99	1999-00	2000-01	% change in 2000-01 over 1999-00
Cars	281,271	289,608	270,782	315,208	282,533	-10.36
Vans	47,577	57,026	59,613	83,461	59,715	-28.45
Multi Utility Vehicles (Gypsy)	7,963	7,702	7,704	8,899	5,869	-34.04

Source: Society of Indian Automobile Manufacturers (SIAM), Statistical Profile-2000-01

Note- After year 2000-2001, the nomenclature of category/segment/sub segment in automobile sector has been changed and as per the report of society of Indian automobile manufacturer, cars have been categorized in Mini (A1), Compact (A2), Mid-Size (A3), Executive (A4), Premium (A5) and Luxury (A6) segment under passenger vehicles. Further after 2000-2001, Gypsy was treated as Utility vehicles (UV) whereas Vans was treated as multipurpose vehicle (MPV).

It was observed that in passenger car segment, Maruti Suzuki recorded growth of 16.40 percent in year 1999-2000 over 1998-1999, whereas year 1998-99 recorded negative growth of -6.50 percent over 1997-98. It was found that the company produced 282,533 vehicles in year 2000-2001 and recorded negative growth of -10.36 percent over 1999-2000. As far as Van is concerned, it was found that the production of van has been decreased by (-) 28.45 percent in year 2000-2001 over 1999-2000. The company produced 59,715 vans in year 2000-2001. In year 2000-2001, Multi Utility vehicle segment registered negative growth of (-) 34.04 percent over 1999-2000. In 2000-2001, the company produced 5,869 vehicles whereas in 1999-2000, the company produced 8,899 multi utility vehicles i.e. Gypsies.

The following table focuses on growth & production of Maruti Suzuki during 2001-02 to 2004-05.

Table 3.5: Vehicle Production of Maruti Suzuki (Financial Year) (Vehicles in Number)

Category/Segment	2001-02	2002-03	2003-04	2004-05	% Growth in 04-05 over 2003-04
A1:Mini	149,424	148,187	178,364	127,175	-28.70
A2: Compact	125,927	146,305	216,163	309,068	42.98
A3: Mid-size	13,086	10,751	14,384	31,491	118.93
B:Utility Vehicles	5,153	3,503	3,433	5,324	55.08
C:Multi Purpose Vehicles, Van type	63,537	51,214	60,564	67,303	11.13

Source: Society of Indian Automobile Manufacturers (SIAM), Statistical Profile- 2005-06.

It was found that, Maruti Udyog Limited recorded positive growth in compact segment, in this segment the company by producing 309,068 vehicles recorded a growth of 42.98 percent in year 2004-05 over 2003-04. In year 2002-03, Maruti Suzuki recorded negative growth of (-) 19.39 percent over 2001-02 in multi-purpose vehicle segment, whereas in utility vehicle segment by producing 3,433 vehicles the company registered negative growth of (-) 1.99 percent in year 2003-04 over 2002-03. In year 04-05, by producing 31,491 vehicles- the company recorded historical growth of 118.93 percent in mid-size segment over 2003-04.

The following table highlights the vehicle production of Maruti during 2005-06 to 2008-09.

Table 3.6: Vehicle Production of Maruti Suzuki (Financial Year) (Vehicles in Number)

Category/Segment	2005-06	2006-07	2007-08	2008-09	% Growth in 08-09 over 2007-08
A1: Mini	98,047	99,400	81,179	62,323	-23.22
A2: Compact	3,72,222	4,48,717	5,37,549	5,55,086	3.26
A3: Mid-size	31,062	30,465	50,596	73,926	46.11
B:Utility Vehicles B1(b)	4,105	3,646	3,001	8,073	169.01
C: Multi Purpose Vehicles	66,661	84,707	93,940	75,215	-19.93

Source: Society of Indian Automobile Manufacturers, Statistical Profile 2008-09

It was disclosed that, Maruti Udyog Limited, in Mini segment recorded negative growth of -23.22 percent in year 2008-09 over 2007-08 whereas in Compact segment, the company recorded growth of 3.26 percent in year 2008-09 over 2007-08. In Midsize segment, the company recorded growth of 46.11 percent in year 2008-09 over 2007-08 & in Multi-purpose vehicle segment, Maruti Suzuki produced 75,215 vehicles in year 2008-09 and registered negative growth of (-) 19.93 percent over 2007-08.

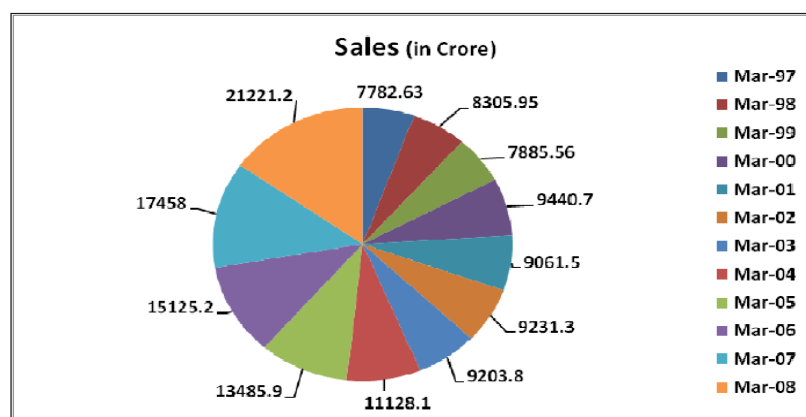
In Utility vehicle segment, Maruti Suzuki produced 8,073 vehicles in year 2008-09 and registered growth of 169.01 percent over 2007-08.

Overview of Sales

The performance of Maruti Udyog Limited & Hyundai Motors India Limited about Sales during 1997-2008 is as follows:

The following pie chart clearly shows the Sales of Maruti Udyog Limited in Crore.

Chart 3.6 Sales of Maruti Suzuki (Rs. in Crore)



Source: Centre for Monitoring Indian Economy, Prowess Database (2009)

From the above chart it was observed that Maruti Suzuki had performed well except year 1999, 2001 & 2003. In year 1999, the sales of Maruti Suzuki was 7,885.56 crore while in year 1998 the sales was 8,305.95 crore i.e. in year 1999-Maruti recorded negative growth of (-) 5.05 percent over 1998. It was observed that- in year 2006, the sales of Maruti Suzuki was 15,125 crore i.e. in this year the company registered growth of 12.16 percent over 2005.

It was also disclosed that in year 2008, Maruti Suzuki recorded growth of 21.55 percent over 2007. In 2008, the sales of Maruti Suzuki was 21,221.2 crore.

Table 3.7: Sales of Maruti (Financial Year) (In Numbers)

Category/ Segment	1996-97	1997-98	1998-99	1999-00	2000-01	% growth in 2000-01 over 99-00
----------------------	---------	---------	---------	---------	---------	---

Cars	282,856	288,421	267,020	314,156	284,661	-9.38
Vans	47,558	56,882	59,503	83,430	59,802	-28.32
Multi Utility Vehicles (Gypsy)	8,332	7,785	7,250	8,705	6,161	-29.22

Category/Segment	2001-02	2002-03	2003-04	2004-05	% Growth in 2004-05 over 2003-04
------------------	---------	---------	---------	---------	--

A1: Mini	144,389	143,342	167,561	116,262	-30.62
A2: Compact	116,587	120,603	176,132	271,280	54.02
A3: Mid-size	12,908	11,086	14,173	29,637	109.11
B: Utility Vehicles [B1(a)]	-----	-----	201	101	-49.75
B: Utility Vehicles [B1(b)]	4,713	3,241	3,354	5,103	52.15
C: Multi Purpose Vehicles, Van type	61,586	51,910	59,526	65,019	9.23

Category/Segment	2005-06	2006-07	2007-08	2008-09	% growth in 2008-09 over 07-08
------------------	---------	---------	---------	---------	---

A1: Mini	89,223	79,245	69,553	49,383	-28.99
A2: Compact	335,136	440,375	499,280	511,396	2.42
A3: Mid-size	31,939	29,697	49,335	75,928	53.90
B: Utility Vehicles-B1(a)	34	----	795	270	-66.03
B: Utility Vehicles-B1(b)	4,340	3,221	3,132	7,219	130.49
C: Multi Purpose Vehicles	66,366	83,091	89,729	77,948	-13.12

Source: Society of Indian Automobile Manufacturers (SIAM), Statistical Profile 2008-09.

Note: Maruti Suzuki changed its name from Maruti Udyog Limited to Maruti Udyog Limited with effect from 17 September 2007.

It was observed that, in car segment-Maruti Udyog Ltd registered a growth of 17.65 percent in year 1999-2000 over 1998-99 whereas in Van segment, the company recorded negative growth of (-) 28.32 percent in year 2000-01 over 1999-2000. It was also disclosed that in Multi Utility vehicles segment, Maruti sold 6,161 Gypsies in year 2000-2001 & recorded negative growth of (-) 29.22 percent over 1999-2000.

It was disclosed that during 2001-02 to 2004-05, Maruti Suzuki has performed well in compact car segment. In compact segment Maruti Suzuki sold 271,280 vehicles in year 2004-05 and recorded growth of 54.02 percent in year 2004-05 over 2003-04 whereas in Utility vehicle segment (B1-a), the company sold 101 utility vehicles in 2004-05 and registered negative growth of (-) 49.75 percent in year 2004-05 over 2003-04. In year 2004-05, Maruti Suzuki sold 5,103 Utility vehicles (B1-b) & recorded growth of 52.15 percent over 2003-04. In Mini segment, Maruti Suzuki sold 116,262 vehicles in year 2004-05 and sold 167,561 vehicles in year 2003-04 i.e. the company recorded negative growth of (-) 30.62 percent in year 2004-05 over 2003-04.

It was found that in multi-purpose vehicle segment- Maruti Suzuki recorded a growth of 14.67 percent in year 2003-04 over 2002-03 whereas in year 2004-05, in same segment by selling 65,019 vehicles, the company recorded growth of 9.23 percent in year 2004-05 over 2003-04.

It was observed that during 2005-06 to 2008-09, the sales of Maruti Suzuki in mini segment has continuously decreased & in year 2008-09 the company in same segment recorded negative growth of (-) 28.99 percent over 2007-08. It was noticed that the compact segment of Maruti Suzuki have performed well during 2005 to 2009 & in year 2008-09, the company sold 511,396 vehicles in this segment and witnessed growth of 2.42 percent over 2007-08.

It was observed that in year 2008-09- Maruti Suzuki sold 270 utility vehicles (B1-a) and registered negative growth of (-) 66.03 percent over 2007-08 whereas in year 2008-09, Maruti's multipurpose vehicle segment sold 77,948 vehicles and registered negative growth of (-) 13.12 percent in 2008-09 over 2007-08.

In year 2008-09, Maruti Suzuki sold 7,219 Utility vehicles (B1-b) and registered excellent growth of 130.49 percent over 2007-08.

Overview of Export

In this, the performance of Maruti Udyog Limited & Hyundai Motor India Limited about Export has been highlighted in general.

The performance of Maruti Udyog Limited about Export during 1996-97 to 2000-01 is highlighted in following table.

Table 4.8: Export of Maruti Suzuki (Financial Year) (In Numbers)

Category/ Segment	1996-97	1997-98	1998-99	1999-00	2000-01	% growth in 2000-01 over 1999-00
----------------------	---------	---------	---------	---------	---------	---

Cars	33,853	24,757	23,446	20,943	15,025	-28.75
Multi Utility Vehicles	1,444	1,030	654	505	245	-51.48

Category/Segment	2001-02	2002-03	2003-04	2004-05	% Growth in 2004-05 over 03-04
------------------	---------	---------	---------	---------	---

A1:Mini	2,993	6,682	10,479	8,185	-21.89
A2: Compact	8,066	24,583	39,454	39,396	-0.15
A3: Mid-size	87	243	315	65	-79.37
B:Utility Vehicles [B1(b)]	354	230	73	86	17.81
C:Multi Purpose Vehicles	731	502	852	1,150	34.98

Category/Segment	2005-06	2006-07	2007-08	2008-09	% Growth in 2008- 09 over 07-08
------------------	---------	---------	---------	---------	---

A1: Mini	11,199	16,858	17,450	14,624	-16.19
A2: Compact	22,331	20,819	34,399	54,099	57.26
A3: Mid-size	67	84	67	111	65.67
B:Utility Vehicles- B1(b)	94	204	103	76	-26.21
C: Multi Purpose Vehicles	1,093	1,330	1,005	1,112	10.64

Source: Society of Indian Automobile Manufacturer, Statistical Profile 2009,

It was noticed that, Maruti Suzuki's export has been continuously decreased since 1996-97 to 2000-01. In year 2000-01, in car segment, Maruti Suzuki's export has been decreased by (-) 28.25 percent over 1999-2000 whereas in year 2000-01, in

multi utility vehicle segment, Maruti Suzuki had exported 245 vehicles & registered negative growth of (-) 51.48 percent in year 2000-01 over 1999-2000.

It was observed that, in compact segment, Maruti Suzuki exported 24,583 vehicles in year 2002-03 & recorded growth of 204.77 percent over 2001-02 whereas in year 2004-05, the company by exporting 65 vehicles recorded negative growth of (-) 79.37 percent over 2003-04. In Utility vehicle segment (B1-b), Maruti Suzuki exported vehicles in year 2004-05 and recorded growth of 17.81 percent over 2003-04. In Multi-purpose vehicle segment, Maruti Suzuki had exported 1,150 vehicles in year 2004-05 & registered growth of 34.98 percent over 2003-04.

It was observed that in mini segment, Maruti Suzuki had exported 14,624 vehicles in year 2008-09 & recorded negative growth of (-) 16.19 percent over 2007-08 whereas in year 2008-09, Maruti Suzuki's compact segment by exporting 54,099 vehicles witnessed positive growth of 57.26 percent over 2007-08. It was noticed that, in mid-size segment, Maruti Suzuki had exported 111 vehicles in year 2008-09 & recorded growth of 65.67 percent over 2007-08.

In Utility vehicle segment (B1-b), Maruti Suzuki had exported 76 vehicles in year 2008-09 & registered negative growth of (-) 26.21 percent over 2007-08 and in multipurpose vehicle segment, the company registered growth of 10.64 percent in year 2008-09 over 2007-08 whereas in same segment, the company registered negative growth of (-) 24.43 percent in year 2007-08 over 2006-07.

Overview of Market Share

The Market Share of Maruti Udyog Limited & Hyundai Motors India Limited during 1996-97 to 2008-09 is as follows-

Table 3.9: Market Share of Maruti Suzuki (Financial Year) (In Percentage)

Category/Segment	1996-97	1997-98	1998-99	1999-00	2000-01
Cars	68.82	69.04	65.19	49.19	48.19
Vans	11.57	13.62	14.53	13.06	10.12
Multi Utility Vehicles (Gypsy)	6.19	5.83	6.49	7.05	4.85

Category/Segment	2001-02	2002-03	2003-04	2004-05	% Growth in 2004-05 over 2003-04
A1: Mini	100.00	100.00	100.00	100.00	-----
A2: Compact	42.34	40.29	47.67	54.66	14.67
A3: Mid-size	15.38	12.00	10.17	16.58	62.99
B: Utility Vehicles [B1(a)]	-----	-----	0.66	0.21	-68.18
B: Utility Vehicles [B1(b)]	18.06	8.17	6.80	9.08	33.49
C: Multi Purpose Vehicles	99.69	99.66	99.95	99.98	0.03

Category/Segment	2005-06	2006-07	2007-08	2008-09	% Growth in 2008-09 over 2007-08
A1: Mini	100.00	100.00	100.00	100.00	----
A2: Compact	58.50	58.49	58.11	57.74	-0.63
A3: Mid-size	17.15	15.08	21.86	31.41	43.68
B: Utility Vehicles- B1(a)	0.05	-----	0.61	0.23	-62.29
B: Utility Vehicles [B1(b)]	6.10	4.78	4.44	10.41	134.45
C: Multi Purpose Vehicles	100.00	100.00	88.96	73.12	-17.80

Source: Society of Indian Automobile Manufacturers, Statistical Profile 2008-09.

It was observed that Maruti Suzuki's market share in car segment has been gradually decreased during 1998-99 to 2000-2001. In car segment, the market share of Maruti in year 2000-2001 was 48.19 percent i.e. the market share of this segment in year 2000-2001 registered negative growth of -2.03 percent over 1999-2000. The market share of Van in year 2000-2001 was 10.12 percent whereas in year 1999-2000, the market share of Van was 13.06 i.e. the market share of Van segment in year 2000-2001 registered negative growth of -22.51 percent over 1999-2000.

It was also disclosed that the market share of multi utility vehicles especially Gypsies in year 2000-2001 was 4.85 percent whereas the market share of multi utility vehicle

segment in year 1999-2000 was 7.05 i.e. in 2000-2001, the market share of Utility vehicle segment registered negative growth of (-) 31.20 percent over 1999-2000.

It was found that, in mini segment, Maruti Suzuki's market share during 2001-02 to 2004-05 was 100 percent whereas the market share of compact car segment in year 2004-05 was 54.66 percent means this compact car segment recorded positive growth of 14.67 percent in year 2004-05 over 2003-04. In mid-size segment, Maruti Suzuki's market share in year 2004-05 was 16.58 percent i.e. this segment registered growth of 62.99 percent in year 2004-05 over 2003-04. In year 2004-05, the market share of Maruti Suzuki's utility vehicle (B1-a) segment was 0.21 percent means this segment witnessed negative growth of (-) 68.18 percent in year 2004-05 over 2003-04.

It was also disclosed that the market share of Maruti Suzuki's multipurpose vehicle during 2001-02 to 2004-05 witnessed positive growth. In year 2004-05, the market share of multipurpose vehicle segment was 99.98 percent means this segment witnessed growth of 0.03 percent in year 2004-05 over 2003-04 whereas in year 2004-05, the market share of utility vehicle (B1-b) segment was 9.08 percent means Maruti Suzuki witnessed growth of 33.49 percent in year 2004-05 over 2003-04.

It was disclosed that, during 2005-06 to 2008-09, Maruti Suzuki has performed well & tried to balance its market share in all segment. During 2005-06 to 2008-09, the market share of Maruti Suzuki's mini segment was 100 percent whereas in year 2008-09, the market shares of compact segment was 57.74 percent i.e. this segment witnessed negative growth of (-) 0.63 percent in year 2008-09 over 2007-08. In year 2008-09, the market share of Maruti Suzuki's mid-size segment was 31.41 percent means this segment witnessed growth of 43.68 percent in year 2008-09 over 2007-08 whereas in year 2008-09, the market share of utility vehicle segment (B1-b) was 10.41 percent i.e. this segment registered drastic growth of 134.45 percent in year 2008-09 over 2007-08. In year 2005-06 and 2006-07, the market share of Maruti Suzuki's multipurpose vehicle segment was 100 percent whereas in year 2008-09, the market share of multipurpose segment was 73.12 percent i.e. in year 2008-09, the market share of multipurpose vehicle segment witnessed negative growth of (-) 17.80 percent over 2007-08.

Table 3.10 Profitability Ratios of Company (In relation to Sales)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Avg.	SD	COV
GPR													
MSIL	9.27	0.79	6.52	8.41	13.89	16.15	16.94	17.36	17.17	11.60	11.81	2.99	25.32
HMIL	10.84	14.99	18.96	13.78	15.64	13.66	14.99	12.25	11.67	6.31	13.31	2.20	16.53
NPR													
MSIL	35.81	33.25	32.09	32.53	30.29	31.51	36.57	38.36	39.27	38.99	34.87	2.42	6.94
HMIL	0.00	0.00	0.00	0.00	0.00	10.39	16.08	18.79	21.32	14.18	16.15	1.76	10.90
OPR													
MSIL	105.55	113.37	109.13	106.39	98.28	93.48	93.32	93.71	93.99	101.95	100.92	3.56	3.53
HMIL	100.46	96.86	93.23	102.95	98.67	100.47	99.01	102.28	102.02	106.38	100.23	2.25	2.24

Sources: Compiled and computer by researcher

Profitability Analysis in relation to sales indicates that companies Gross Profit Ratio was below than the recommended value of 25-30 per cent during the reference period and Operating Profit Ratio was also not satisfactory because the ratio was more than the recommended value of 75-80 per cent during the study period and it can be concluded that profitability in terms of gross profit and operating profit was not good of both the companies. Net Profit of MUL can be said satisfactory it was more than the recommended value of 5-10 percent and in the case of HMIL from 2000-2004 whole of the profit was used in appropriations after that it varied in a range of 10 to 21 per cent.

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Avg.	SD	COV
GPR	9.27	0.79	6.52	8.41	13.89	16.15	16.94	17.36	17.17	11.60	11.81	2.99	25.32
NPR	35.81	33.25	32.09	32.53	30.29	31.51	36.57	38.36	39.27	38.99	34.87	2.42	6.94
OPR	105.55	113.37	109.13	106.39	98.28	93.48	93.32	93.71	93.99	101.95	100.92	3.56	3.53

Sources: Compiled and computer by researcher

Profitability Analysis in relation to sales indicates that companies Gross Profit Ratio was below than the recommended value of 25-30 per cent during the reference period and Operating Profit Ratio was also not satisfactory because the ratio was more than the recommended value of 75-80 per cent during the study period and it can be

concluded that profitability in terms of gross profit and operating profit was not good. Net Profit of MUL can be said satisfactory. Whole of the profit was used in appropriations after that it varied in a range of 10 to 21 per cent.

Table 3.12 Liquidity Ratios of Companies

Years	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Avg.	SD	COV
CR													
MSIL	1.46	1.78	1.48	1.94	1.36	1.92	1.99	1.50	1.16	1.67	1.62	0.68	41.98
HMIL	2.02	1.87	1.90	2.08	1.31	1.35	1.54	1.44	1.72	1.79	1.70	0.68	40.00
LR													
MSIL	0.74	1.09	1.00	1.60	1.06	1.49	1.52	1.26	0.77	1.39	1.19	0.72	60.50
HMIL	1.08	1.06	1.31	1.50	0.83	0.71	0.58	0.49	0.93	1.03	0.95	0.70	73.51
ACR													
MSIL	0.02	0.07	0.05	0.69	0.16	0.66	0.75	0.48	0.12	0.59	0.36	0.74	205.56
HMIL	0.72	0.62	0.88	1.21	0.55	0.10	0.34	0.11	0.29	0.18	0.50	0.76	1.52

Sources: Compiled and computer by researcher

Liquidity Analysis shows that in both the companies' liquidity position was not good during the reference period. Current Ratio, Liquidity Ratio as well as Absolute Cash Ratio was below than the recommended value of 2:1, 1:1 and 0.5:1 in most of the years which means companies were not able to face their short term obligations in time.

Table 3.13 On the Basis of Mean Values of Ratios the Profitability Analysis of Maruti India Ltd

Profitability Analysis	Maruti
Gross Profit Ratio	10.534
Net Profit Ratio	8.644
Operating Profit Ratio	13.242
Sum of Mean Value	32.42
Avg. Score	10.80667
Ranking	1

Sources: Compiled and computer by researcher

Interpretation: From the above table.4.2 it has been found that the average gross profit ratio of Maruti is 10.534. The study revealed that the gross profit ratio of Maruti in the year 2009 and 2010 were below than the average gross profit ratio and in year 2006, 2007 and 2008 it was above than the average gross profit ratio.

Further study revealed that the average net profit ratio of Maruti is 8.644. The study found that the net profit ratio of Maruti in the year 2009 and 2010 were below than the average net profit ratio and in year 2006, 2007 and 2008 it was above than the average net profit ratio. The study also found that the average operating profit ratio of

Maruti is 13.242. It has been revealed that the operating profit ratio of Maruti in the year 2009 and 2010 were below than the average operating profit ratio and in year 2006, 2007 and 2008 it was above than the average operating profit ratio.

It is evident from the table.2.2 that Maruti leads in the profitability analysis. Maruti's profitability score is 10.8066

Table 3.14 Profitability Ratios of Companies (In relation to Investment)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Avg.	SD	COV
ROI													
MSIL	0.16	0.00	0.06	0.09	0.35	0.41	0.51	0.58	0.72	0.28	0.35	0.57	161.65
HMIL	0.09	0.16	0.21	0.16	0.29	0.29	0.31	0.27	0.16	0.07	0.20	0.38	190.47
ROE													
MSIL	224.49	0.00	48.98	71.76	345.19	550.73	752.94	991.0	1097.79	773.43	539.59	24.23	4.49
HMIL	0.07	0.21	0.19	0.05	0.32	0.35	0.65	0.57	0.63	0.09	31.37	0.61	1.94
ROA													
MSIL	72.37	59.48	67.49	65.73	70.65	73.45	79.54	75.32	75.42	79.69	71.91	3.01	1.88
HMIL	0.00	0.00	0.00	0.00	0.00	0.34	0.46	0.37	0.35	0.30	36.43	1.88	5.16

Sources: Compiled and computer by researcher

Profitability Analysis in relation to Investment shows that MUL has used its funds received from owners as well as from long term vendors in a better way in comparison to HMIL's ROI. On an average MUL's ROI was 0.35 whereas HMIL's ROI was 0.20 during the reference period. MUL's ROE was much better in comparison to the ROE of HMIL. ROA and ROE of both the companies in 2001 where it was almost NIL which shows non availability of profit for the equity shareholders in that year. ROA indicates that MUL is better in managing its assets in comparison to HMIL. ROA of HMIL was almost NIL due to non-availability of profit from 2000-2004 during the study period.

Table 3.15 the Mean Values of the Ratios

Profitability Analysis	Maruti
Return on Equity	21.908
Return on Assets	20.498
Return on Investment	30.122
Sum of Mean Value	72.528
Avg. Score	24.176

Sources: Compiled and computer by researcher

Efficiency Analysis

Table 3.16: Efficiency Ratios of the Company's

Efficiency Analysis	Maruti
Fixed Assets Turnover Ratio	4.118
Stock Turnover Ratio	23.856
Debtor Turnover Ratio	25.316
Sum of mean values	53.29
Avg. score	17.76333
Ranking	1

Sources: Compiled and computer by researcher

Interpretation: From the above table.4.4 it has been revealed that the average fixed assets Turnover ratio of Maruti and Tata are 4.118 and 3.302 respectively. The study revealed that the fixed assets turnover ratio of Maruti in the year 2008, 2009 and 2010 were below than the average fixed assets turnover ratio and in year 2006 and 2007 it was above than the average fixed assets turnover ratio. During the study period it has been found that the average stock turnover ratio of Maruti is 23.856. It has been found that the stock turnover ratio of Maruti in the year 2006, 2007 and 2008 was below than the average stock turnover ratio and in year 2009 and 2010 it was above than the average stock turnover ratio.

Further study revealed that the average debtor turnover ratio of Maruti is 25.316. It means that for Maruti the stock turnover ratio in the year 2006 and 2007 was below than the average stock turnover ratio and in year 2008, 2009 and 2010 it was above than the average stock turnover ratio.

It is evident from the Table 3.16 that Maruti leads in the efficiency analysis. Maruti's efficiency scores 17.763.

Leverage Analysis

Table 3.16: Leverage ratios of Companies (Times)

Leverages Analysis	Maruti
Capital Gearing Ratio	24.808
Debt Equity Ratio	0.07
Interest Coverage Ratio	66.432
Sum of mean value	91.31
Avg. score	30.43667
Ranking	1

Sources: Compiled and computer by researcher

Interpretation: From the above Table.3.16 it has been revealed that the average capital gearing ratio of Maruti is 24.808. The study revealed that the capital gearing ratio of Maruti in the year 2007,2008, 2009 and 2010 were below than the average capital gearing ratio and in year 2006 it was above than the average capital gearing ratio.

Further the study revealed that the average debtor turnover ratio of Maruti is 0.07 and it has been found that the debtor turnover ratio of Maruti in the year 2006 was below than the average debtor turnover ratio and in year 2007 and 2008 it was above than the average debtor turnover ratio.

The study also found that the average interest coverage ratio of Maruti is 66.432. It reflects that the interest coverage ratio of Maruti in the year2007, 2008 and 2009 was below than the average interest coverage ratio and in year 2006 and 2010 it was above than the average interest coverage ratio.

It is evident from the Table 3.15 that Maruti leads in the leverage analysis. Maruti's leverage scores 30.43. It canals be inferred that the comparative variability of Maruti is good.

Market Value Analysis

Table 3.17: Market Value Ratios of Companies

Market Value Analysis	Maruti
Earnings Per Share	56.754
Price Earnings Ratio	17.008
Book Value Per Share	290.068
Sum of Mean Values	363.83
Avg. score	121.2767
Ranking	1

Sources: Compiled and computer by researcher

Interpretation: From the above Table 3.17 it has been revealed that the average earning per share of Maruti is 56.754. The study produced that the earning per share of Maruti in the year2006, 2007 and 2009 were below than the average earning per share and in year 2008 and 2010 it was above than the average earning per share.

Further it has been found that the average price earnings ratio of Maruti is 17.008 and it has been revealed that the price earnings ratio of Maruti in the year 2007, 2008 and 2009 was below than the average price earnings ratio and in year 2006 and 2010 it was above than the average price earnings ratio.

The study also found that the average book value per share of Maruti is 290.068. It's also found that the book value per share of Maruti in the year 2006 and 2007 was below than the average book value per share and in year 2008, 2009 and 2010 it was above than the average book value per share.

It is evident from the Table.3.17 that Maruti leads in the market value analysis. Maruti's market values score 121.27 and It can also be inferred that the comparative variability of Maruti.

Table 3.18 Ranking

Particulars	Maruti Rank	Maruti Point
Liquidity analysis	First	2
Profitability analysis (sales)	First	2
Profitability analysis (Investment)	First	2
Efficiency analysis	First	2
Leverage analysis	First	2
Market valuation	First	2
Total Points		12

Sources: Website of Maruti Udyog Limited

After calculating ratio analysis of Maruti, it has been found that Maruti have secured first rank in Liquidity analysis, Profitability analysis, Efficiency analysis, Leverage analysis and in Market Value Analyses.

In order to calculate point in study, 2 point has been awarded to first rank and 1 point to second rank. According to the finding of the ranking table Maruti has secured 12point as it has secured first rank in all the concerned ratio analysis. Thus, it can be considered that Maruti is strategically in better position and satisfactory in most of the analysis in comparison to other automobile companies in India.

Market Value Ratios: - Market value ratios play an important role in determining the profitability of any company. These ratios show the relationship between the profit available for the distribution and the shareholders. These ratios have been calculated to know the market position of the companies:

- Earnings per Share
- Price Earnings Ratio

- Book Value per Share
- Economic Value Added (EVA)
- Market Value Added (MVA)
- Tobin's Q (TQ)

Table 3.19 Market Value Ratios of Maruti Udyog Ltd and Hyundai Motors I Ltd

EPS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Avg.	SD	COV
MSIL	11.22	0.00	2.45	3.59	17.27	27.55	37.66	49.57	54.91	38.68	26.99	5.46	20.23
HMIL	73.26	212.30	188.56	52.93	317.25	351.90	648.27	576.22	634.72	91.05	314.64	19.54	6.21
PER													
MSIL	0.00	0.00	0.00	0.00	26.78	14.39	21.51	15.38	14.05	18.65	11.08	2.97	26.81
HMIL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
BVPS													
MSIL	130.70	141.90	127.11	123.02	135.10	162.22	191.22	259.08	322.45	347.66	194.04	11.73	6.05
HMIL	1968.01	2062.74	2172.08	1966.01	2294.20	2404.95	3181.44	5446.21	7576.68	8980.98	3805.40	65.07	1.71

Market Value Analysis indicates that in the year 2001 EPS of MUL was almost NIL due to non-availability of profit overall HMIL's EPS can be said well during the reference period. Price Earnings Ratio of MUL was zero from 2000 to 2003, and of HMIL was almost NIL in all the years during the reference period. Book Value per Share of MUL varied in a range of 194.04 and of HMIL varied in a range of 3805.40.

Table 3.20 Market Value Ratios of Maruti Udyog Ltd and Hyundai Motors I Ltd

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Avg.	SD	COV
EVA													
MSIL	0.10	0.00	0.03	0.04	0.14	0.18	0.22	0.21	0.19	0.12	0.14	0.31	221.43
HMIL	0.04	0.10	0.16	0.10	0.20	0.21	0.20	0.11	0.08	0.03	0.12	0.33	267.72
MVA													
MSIL	0.00	0.00	0.00	0.00	3.68	2.59	4.57	3.16	2.57	2.23	3.14	0.89	28.34
HMIL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TQ													
MSIL	0.00	0.00	0.00	0.00	4.07	2.94	4.93	3.57	2.88	2.57	3.49	0.91	26.07
HMIL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Market Value Analysis shows that in the year 2001 EVA of MUL was almost NIL due to on availability of profits on an average it can be said satisfactory as compared to HMIL. MVA of MUL was almost NIL from 2000 to 2003 during the reference period and it varied in a range of 3.14 in rest of the years. Tobin's Q of MUL was almost NIL from 2000 to 2003 during the reference period and varied in a range of 3.49 in rest of the years

Efficiency Analysis of MUL and HMIL:-Efficiency analysis shows how assets are being utilized in the company. These ratios have been calculated to know efficiency of the companies:-

- Fixed Assets Turnover Ratio
- Stock Turnover Ratio
- Debtors Turnover Ratio
- Working Capital Turnover Ratio

Table 3.22 Efficiency Ratios of Maruti Udyog Ltd and Hyundai Motors I Ltd (Times)

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Avg.	SD	COV
FATR													
MSIL	3.21	2.99	2.91	3.18	4.97	5.83	7.09	5.53	5.43	5.04	4.62	1.57	33.99
HMIL	10.45	7.36	5.25	4.66	5.72	5.84	5.35	5.09	4.64	3.29	5.77	1.59	27.58
STR													
MSIL	7.06	7.76	10.39	14.74	20.70	16.39	13.64	20.95	17.24	22.75	15.16	2.98	19.65
HMIL	8.54	11.25	10.24	12.15	10.28	9.94	9.90	6.84	6.60	7.30	9.30	1.78	19.13
DTR													
MSIL	14.99	9.94	8.43	10.70	13.21	18.22	18.60	19.66	27.29	22.34	16.34	3.12	19.10
HMIL	811.40	111.74	25.77	56.31	14.83	20.58	32.64	20.33	12.00	8.11	114.07	16.70	14.64
WCTR													
MSIL	11.68	6.82	10.97	5.51	18.69	8.01	6.81	11.03	65.73	9.81	15.51	4.62	29.80
HMIL	7.71	9.24	6.66	6.31	15.72	13.10	8.53	8.84	6.19	6.12	8.84	2.14	24.20

Efficiency Analysis indicates that FATR of MUL can't be said satisfactory from the year 2000-2004 because usually 5-6 times FATR is considered good for any company and in the case of HMIL except in 2003, 2008 and 2009 it was below than the recommended value. In all the year except 2000 and 2001 MUL has proved efficient company in managing its inventory in comparison to HMIL. Except 2008 and 2009 HMIL has proved a better managing company in recovering its debtors in comparison to MUL. In all the years except 2001, 2003, 2005 and 2006 WCTR of MUL was more than the WCTR of HMIL.

Leverage Analysis of MUL and HMIL:-Leverage analysis means to know the long term solvency position of the company.

These ratios have been calculated to know efficiency of the companies:-

1. Capital Gearing Ratio

2. Debt Equity Ratio

3. Interest Coverage Ratio

Leverage Ratios of Companies (Times)

Leverage Analysis shows that MUL was highly geared in all the years during the reference period as compared to HMIL which is a signal of under capitalization for any company. In all the years DER was less than the 2:1 in both the companies during the reference period which signals good situation for the company because it means that the company is not dependent on the debt for its capital requirements. ICR of MUL in 2001 indicates negative trend which shows inability of company to pay interest in time. Overall it can be said satisfactory for both the companies. On an average HMIL ICR was more than the MUL's ICR.

The following valuation parameters have been utilized for the study:-

1. On the basis of Growth Rate
2. On the basis of Sales
3. On the basis of Market Capitalization
4. On the basis of Research & Development Expenditure
5. On the basis of Cash Flows
6. On the basis of Shareholders Wealth
7. On the basis of Ratio Analysis
8. On the basis of Profitability
9. On the basis of Market Value Ratios

Valuation on the basis of Average Growth Rate of Sales & Sales

Sales figures for the last 10 years from 2000 to 2009 were taken for the analysis. First the growth rate for each year was calculated and the average of the growth rate for all

years was taken. The methodology involved finding out the cumulative Sales for both the companies to determine the top company in terms of sales for the past 10 years.

Table 3.23 Higher Growth Rate & Top Company in terms of Sales

Average Growth Rate (2000-2009) (%)			Cumulative Sales (2000-2009) (In Crore)			Position based on sales (2009) (In Crore)		
Rank	Company	G.Rate	Rank	Company	Total C.Sales	Rank	Company	T.Sales
1	HMIL	61.67	1	MSIL	11312	1	MSIL	20530.10
2	MSIL	13.77	2	HMIL	6241	2	HMIL	15522.55

Source of Data: CMIE Prowess database

It is observed that HMIL is having the higher growth rate as compared to MUL. The growth rate of HMIL is 61.67% in comparison to the 13.77% of MUL. The Sales of MUL is more than the sales of next best its competitor HMIL. It is almost double in comparison to the HMIL's Sales. When the Sales exclusively for the year 2009 are taken, the position remains the same, MUL leads in the case of higher sales.

Valuation based on Average Market Capitalization & R&D Expenditure

The following table gives a position of both the companies ranked on the basis of market capitalization and Average R&D expenditure of MUL and HMIL for the last 10 years (2000-2009):-

Table 3.24 Average Market Capitalization & R&D Expenditure-Valuation

Average Market Capitalization (2000-2009) (In Crore)			Average R&D Expenditure (2000-2009) (In Crore)		
Rank	Company	Average Market Capitalization	Rank	Company	R&D Exp.
1	MSIL	20303	1	MSIL	0.38
2	HMIL	NIL	2	HMIL	0.06

Source of Data: CMIE Prowess database

From the above table it can be seen that MUL has the higher market capitalization as compared to HMIL. The position of HMIL is almost NIL in the case of market capitalization. We can see that there is a big difference between the R&D expenditure of MUL and HMIL. Very less attention has been paid by the HMIL in the last 10 years over the R&D expenditure.

Valuation based on Cash Flows and Shareholders Wealth

The following table gives a position of both the companies that have topped in the operational cash flows and shareholders wealth:

Table 3.25 Average Cash Flow & Shareholders Wealth

Average Cash Flow & Shareholders Wealth

Average Cash Flow (2000-2009) (In Crore)			Shareholders Wealth (2000-2009) (In Crore)		
Rank	Company	Average Cash Flow	Rank	Company	Shareholders Wealth
1	MSIL	834.71	1	MSIL	4939.67
2	HMIL	429.01	2	HMIL	1742.06

Source of Data: CMIE Prowess database

From the above table we can see that MUL has higher cash flows followed by HMIL. Figure Rest. 834.71 cores represent the cash flow position of MUL whereas the figure Rs. 429.01 crore represents the cash flow position of HMIL. It can be seen that MUL has higher shareholders wealth followed by HMIL. MUL's shareholder wealth was Rs. 4939.67 crore whereas HMIL's shareholder wealth was Rs. 1742.06 crore.

Valuation based on General Ratio Analysis

The ratios used were categorized into liquidity, profitability, efficiency and leverage ratios. The ratios were calculated for a period of 10 years from 2000 to 2009 on an average basis. The companies were ranked on the basis of each ratio type; points were given to the companies in each ratio type.

Table-3.26 Ratio Analysis-Liquidity and Profitability (2000-2009)

Points	Company	Liquidity Score	Points	Company	Profitability Score
2	MSIL	3.18	2	MSIL	557.86
1	HMIL	3.15	1	HMIL	49.78

Source of Data: CMIE Prowess database

Table 2.27 Ratio Analysis-Efficiency and Leverage (2000-2009)

Points	Company	Efficiency Score	Points	Company	Leverage Score
2	HMIL	137.98	2	MSIL	45.30
1	MSIL	51.62	1	HMIL	45.13

Source of Data: CMIE Prowess database

Table-3.28: Ranking of Companies on the basis of Ratio Analysis points (2000-2009)

Average Ratio Analysis Ranking (2000-2009)		
Rank	Company	Total Points
1	MSIL	7
2	HMIL	5

Source of Data: CMIE Prowess database

MUL tops the list. MUL has got the 7 points in comparison to 5 points of HMIL. MUL has got 6 points for liquidity, profitability and for leverage score, in the case of efficiency score it has got only 1 point.

The three ratios of ROI, ROE and ROA were taken as indicators of profitability and three ratios of EPS, P/E Ratio and BVPS were taken as indicators of market. All the three ratios were given equal weightage in arriving at a single figure called profitability score and market score that will signify the profitability and market valuation of the company.

Table 3.28 Valuation based on Profitability & Market Value Ratios

Value based on Average Profitability (2000-2009)			Value based on Market Value Ratios (2000-2009)		
Rank	Company	Profitability Score	Rank	Company	Market Value Score
1	MSIL	557.86	1	HMIL	4120.05
2	HMIL	49.78	2	MSIL	229.41

Source of Data: CMIE Prowess database

From the above Table 3.28, it can be seen that MUL leads the list in terms of profitability followed by HMIL. MUL profitability score was 557.86 in the comparison of 49.78 score of HMIL. It can be observed from the table that HMIL leads the list in terms of market valuation. HMIL market value score was 4120.05 in the comparison of 229.41 of MUL.

Conclusion

The automobile industry is considered an engine for economic growth of the country. Maruti Suzuki has proven that it is always ahead than its competitors because of continuous innovations and technological up gradations. The company has set a benchmark of excellence because of Research & Development activity as Maruti Suzuki believes that this activity will enable the company to offer superior and environment friendly products to customer with complete satisfaction. Maruti Suzuki's environmental performance is really uncountable. Considering the growing vehicle pollution, the company introduced advanced K-Series engine in its vehicles which resulted in reduction of CO, THC and NOx emissions by almost 50 percent. As far as economic performance is concerned, Maruti Suzuki's last few years' statistics of Domestic sales, Export, narrates that still Maruti Suzuki is the leader of Indian Automobile sector. The detail of the performance of Maruti Udyog Limited has been discussed at length by the researcher in this chapter.

The analysis and interpretation of the performance of Maruti Udyog Limited will be discussed in the next chapter.

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Fourth Chapter

Analysis and Interpretation

- **Introduction**
- **Results and Discussion**
- **Analysis of Liabilities**
- **Analysis of Assets**
- **Analysis of Income**
- **Analysis of Expenditure**
- **Interpretation**
- **Conclusion**
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Fourth Chapter

Analysis and Interpretation

Introduction

The researcher discussed the financial performance of Maruti Udyog limited in detail in the previous chapter in regard to profitability, liquidity, solvency and efficiency. This Chapter analyzes the Liquidity and Profitability of the companies on the basis of some selected ratios. Apart from liquidity and profitability, market value position of the companies has also been discussed in this chapter. Market Value of the companies has been evaluated on the basis of some selected parameters i.e. Sales, Market Capitalization, R&D Expenditure, Cash Flows and Shareholders Wealth.

Results and Discussion

The ratio of working capital to total assets of the select automobile companies for a period of 15 years and the results of ANOVA are shown in Tables 4.1 and 4.2.

Table 2 -Ratio of working capital to total assets of select companies in Automobile

Industry for the period 1999-2000 to 2013-14 (in percent)

Table 4.1 Ratio of working capital and total assets

Year	Ashok Leyland Ltd	Force Motors Ltd	Maruti Suzuki Ltd	Tata Motors Ltd	TVS Motors Ltd
1999-00	49.05	46.21	17.30	11.63	20.26
2000-01	48.40	51.32	26.23	2.39	23.66
2001-02	51.01	42.79	19.17	0.14	22.86
2002-03	44.60	52.59	30.69	-12.55	1.29
2003-04	40.68	47.54	12.47	-19.85	-4.04
2004-05	48.11	43.24	29.10	8.25	0.44
2005-06	39.15	26.54	31.12	30.04	5.96
2006-07	37.15	11.53	17.80	25.59	13.56
2007-08	19.86	13.30	2.92	-1.93	13.98
2008-09	18.86	14.33	20.84	-5.12	16.01
2009-10	20.02	20.10	1.61	-18.58	12.36
2010-11	6.71	18.23	12.32	-4.56	8.49
2011-12	3.59	52.02	6.08	-8.28	3.92
2012-13	6.95	29.41	-1.41	-10.52	0.52
2013-14	-21.85	19.98	-14.33	-23.83	-31.07
Mean	27.49	32.61	14.13	-1.81	7.21

Source: Capitaline Plus Database

Table 4.2 - Results of ANOVA

Source of variation	SS	df	MS	F ratio	Sig
Between Groups	12085.910	4	3021.478	11.403	0.000*
Within Groups	18547.279	70	264.961		
Total	30633.189	74			

Significant at 5 percent level

The ratio of working capital to total assets of Ashok Leyland was at 49.05 percent in 1999-2000. In general, the ratio showed a fluctuating trend till 2009-10 and it declined to 6.71 percent in 2010-11. It was negative at -21.85 percent in 2013-14 reflecting the firm's inability to meet the current obligations.

The average ratio of working capital to total assets of Ashok Leyland was at 27.49 percent. The ratio of working capital to total assets of Force Motors was at 46.21 percent in 1999-2000 and 19.98 percent in the year 2013-14, registering a fluctuating trend during the study period. The highest ratio of 52.59 percent was registered during 2002-03. The mean value of working capital to total assets of Force Motors stood at 32.61 percent. It indicates firm's ability to meet the current obligations. The ratio of working capital to total assets of Maruti Suzuki Ltd was at 17.30 percent in the year 1999-2000 and - 14.33 percent in 2013-14. The highest ratio of 31.12 percent was found in 2005-06. The average ratio of working capital to total assets of Maruti Suzuki Ltd was at 14.13 percent. The ratio of working capital to total assets of Tata Motors was 11.63 percent in 1999-2000 and -23.83 percent in 2013- 14. The ratio showed a fluctuating trend during the study period and the highest ratio of 30.04 percent was registered in 2005-06. The average ratio of working capital to total assets of Tata Motors was at - 1.81 percent during the study period. The ratio of working capital to total assets of TVS Motors was at

20.26 percent in 1999-2000 and -31.07 percent in 2013-14 that showed the inability to meet the current obligations. The highest ratio of 23.66 percent was found during the year 2000-01 and the average ratio of TVS Motors was at 7.21 percent during the period.

Results of ANOVA were significant at 5 percent (0.000) and hence the null hypothesis is rejected. The ratio of working capital to total assets was not equal in the sample units under study.

Ratio of retained earnings to total assets

The ratio of retained earnings to total assets of the select automobile companies over a period of 15 years and ANOVA results are presented in Tables 3 and 3A respectively.

Table 4.3 -Ratio of Retained Earnings to total assets of select companies in Automobile Industry for the period 1999-2000 to 2013-14. (In percent)

Year	Ashok Leyland Ltd	Force Motors Ltd	Maruti Suzuki Ltd	Tata Motors Ltd	TVS Motors Ltd
1999-00	48.49	52.16	80.38	51.76	55.44
2000-01	50.18	46.76	66.85	47.94	56.53
2001-02	47.69	53.5	76.56	44.97	61.24
2002-03	50.12	62.62	83.1	56.15	73.38
2003-04	60.15	71.25	88.3	66.74	79.42
2004-05	51.21	71.83	90.35	56.75	75.67
2005-06	61.31	46.94	96.08	60.82	64.48
2006-07	69.51	39.78	89.64	59.6	54.44
2007-08	66.39	19.14	88.78	52.79	53.6
2008-09	61.5	55.17	91.6	56.13	45.82
2009-10	59.43	62.65	92.36	45.61	45.03
2010-11	57.94	52.65	95.21	49.01	52.59
2011-12	53.42	91.1	90.13	49.43	54.75
2012-13	47.11	92.92	90.78	48.85	61.55
2013-14	50.19	97.31	91.89	55.01	72.32
Mean	55.64	61.05	87.47	53.44	60.42

Source: Capitaline Plus Database

Table 4.4 Results of ANOVA

Source of variation	SS	df	MS	F ratio	Sig.
Between Groups	1248933.52	4	312233.38	0.950	0.440
Within Groups	2.300E7	70	328556.08		
Total	2.425E7	74			

(Significant at 5 percent level)

The ratio of retained earnings to total assets of Ashok Leyland Ltd was at 48.49 percent in 1999-2000 and 50.19 percent in 2013-14. The ratio showed the fluctuating trend during the study period and it was higher at 69.51 percent in 2006-07. The average ratio of retained earnings to total assets stood at 55.64 percent. The ratio of retained earnings to total assets of Force Motors was found to be at 52.16 percent in 1999-2000 and it was the highest at 97.31 percent in 2013-14. The mean value of retained earnings to total assets of Force Motors was at 61.05 percent during the period. The ratio of retained earnings to total assets of Maruti Suzuki Ltd was at 80.38

percent and 91.89 percent in 1999-2000 and 2013-14 respectively. The average ratio of retained earnings to total assets of Maruti Suzuki stood at 87.47 percent. The ratio of retained earnings to total assets of Tata Motors Ltd was at 51.76 percent during 1999-2000 and 55.01 percent during 2013-14. The ratio recorded a fluctuating trend during the study period with a mean value of 53.44 percent. The ratio of retained earnings to total assets of TVS Motors was at 55.44 percent in 1999-2000 and 7.32 percent in 2013-14. The highest ratio was found at 79.42 percent in 2003-04 and the average ratio of retained earnings to total assets stood at 60.42 percent during the 15 year period of study.

The ANOVA results are not significant (0.440) and hence the null hypothesis was accepted. The ratio of retained earnings to total assets was equal in the sample units.

Ratio of EBIT to total assets

The ratio of EBIT to total assets of the select automobile companies over a period of 15 years and the results of ANOVA are presented in Tables 4.5 and 4.6

Table 4.5 Ratio of EBIT to total assets of select companies in Automobile Industry for the period 1999-2000 to 2013-14. (In percent)

Year	Ashok Leyland Ltd	Force Motors Ltd	Maruti Suzuki Ltd	Tata Motors Ltd	TVS Motors Ltd
1999-00	14.79	17.55	20.48	13.18	38.71
2000-01	15.27	14.42	3.43	5.41	25.11
2001-02	17.81	22.38	16.00	13.86	30.53
2002-03	21.98	34.33	18.48	29.14	53.65
2003-04	28.52	42.55	33.51	38.71	43.91
2004-05	24.15	15.71	38.36	35.11	34.47
2005-06	29.41	17.69	37.21	33.84	24.61
2006-07	30.92	5.24	34.59	32.43	14.79
2007-08	29.37	-1.56	33.61	25.88	9.51
2008-09	10.07	68.82	24.23	10.63	11.57
2009-10	14.29	23.57	35.17	16.19	13.59
2010-11	19.03	24.32	28.78	12.52	23.63
2011-12	17.57	89.22	20.01	10.99	23.96
2012-13	13.82	7.95	24.84	8.93	17.89
2013-14	1.99	7.76	22.49	-2.61	25.28
Mean	19.27	25.99	26.08	18.95	26.08

Source: Capitaline Plus Database

Table 4.6 Results of ANOVA

Source of variation	SS	df	MS	F ratio	Sig.
Between Groups	869.16	4	217.29	1.011	0.408
Within Groups	15042.25	70	214.89		
Total	15911.41	74			

(Significant at 5 percent level)

The ratio of EBIT to total assets of Ashok Leyland was at 14.79 percent in 1999-2000 and declined to 1.99 percent in 2013-14. In general, the ratio showed an fluctuating trend and the average ratio of EBIT to total assets of Ashok Leyland was at 19.27 percent during the period of study. The ratio of EBIT to total assets of Force Motors was at 17.55 percent in 1999-2000 and it declined to 7.76 percent in 2013-14. The mean value of EBIT to total assets stood at 25.99 percent. The ratio of EBIT to total assets of Maruti Suzuki Ltd was observed at 20.48 percent and 22.49 percent in 1999-2000 and 2013-14 respectively. Its average ratio of EBIT to total assets stood at 26.08 percent. The ratio of EBIT to total assets of Tata Motors Ltd was at 13.18 percent in 1999-2000 and it came down to -2.61 percent in 2013-14. The mean value of the ratio of EBIT to total assets stood at 18.95 percent. The ratio of EBIT to total assets of TVS Motors was at 38.71 percent in 1999-2000 and at 25.28 percent in 2013-14. The average ratio of EBIT to total assets of TVS Motors stood at 26.08 percent during the 15 year period. “F” value was found to be insignificant (0.408), and the null hypothesis is accepted. The ratio of EBIT to total assets is equal in all sample units.

Ratio of equity to total debt

The ratio of equity to total debt of the select automobile companies over a period of 15 years and the

ANOVA results are shown in Tables 4.7 and 4.8

Table 4.7 Ratio of equity to total debt of select companies in Automobile Industry for the period 1999-2000 to 2013-14. (In percent)

Year	Ashok Leyland Ltd	Force Motors Ltd	Maruti Suzuki Ltd	Tata Motors Ltd	TVS Motors Ltd
1999-00	12.31	14.14	24.23	8.52	10.91
2000-01	12.75	13.29	11.89	8.53	9.87
2001-02	13.39	17.83	20.17	13.87	13.84
2002-03	16.57	21.46	29.01	21.93	18.95
2003-04	23.84	22.47	46.33	28.02	19.96
2004-05	13.51	22.84	46.98	14.49	12.71
2005-06	17.65	5.85	201.53	13.04	6.17
2006-07	20.67	5.29	22.91	9.61	3.75
2007-08	14.99	3.60	16.05	6.14	3.56
2008-09	6.79	8.19	20.67	3.90	2.62
2009-10	5.83	8.91	17.59	3.44	2.37
2010-11	5.18	5.34	46.73	3.97	6.19
2011-12	8.59	22.08	11.68	3.99	5.72
2012-13	6.11	31.39	10.87	3.79	7.49
2013-14	6.85	64.67	8.96	4.43	9.98
Mean	12.34	17.82	35.71	9.84	8.94

Source: Capitaline Plus Database

Table 4.8 Results of ANOVA

Source of variation	SS	df	MS	F ratio	Sig.
Between Groups	7327.87	4	1831.97	3.482	0.012*
Within Groups	36829.72	70	526.14		
Total	44157.60	74			

(Significant at 5 percent level)

The ratio of equity to total debt of Ashok Leyland was at 12.31 percent in 1999-2000 and it declined to 6.85 percent in 2013-14. The ratio recorded a fluctuating trend during the period of study and the average ratio of equity to total debt of Ashok Leyland stood at 12.34 percent. From 14.74 percent in 1999-2000, ratio of equity to total debt of Force Motors Ltd rose to 64.67 percent in 2013-14. The mean value of the ratio stood at 17.82 percent. The ratio of equity to total debt of Maruti Suzuki was at 24.23 percent in 1999-2000. It declined to 8.96 percent in 2013-14 and the trend of the ratio was found to be fluctuating. The average ratio of equity to total debt of Maruti Suzuki Ltd was at 35.71 percent.

The ratio of equity to total debt of Tata Motors was at 8.52 percent in 1999-2000 and it was reduced to 4.43 percent in 2013-2014. The average ratio of equity to total debt of Tata Motors stood at 9.84 percent. The ratio of equity to total debt of TVS Motor Ltd was at 10.91 percent in 1999-2000 and at 9.98 percent in 2013-2014. In general, the ratio showed a fluctuating trend. The average ratio of equity to total debt of TVS Motors Ltd stood at 8.94 percent during the period of study.

The results of ANOVA were significant (0.012) at 5 percent and hence the null hypothesis was rejected.

Ratio of sales to total assets

The ratio of sales to total assets of the select automobile companies over a period of 15 years and the results of ANOVA are presented in Tables 4.9 and 4.10.

4.9 Ratios of sales to total assets of select companies in Automobile Industry for the period 1999-2000 to 2013-14. (In percent)

Year	Ashok Leyland Ltd	Force Motors Ltd	Maruti Suzuki Ltd	Tata Motors Ltd	TVS Motors Ltd
1999-00	110.69	255.51	202.11	106.59	292.64
2000-01	109.62	244.90	178.42	106.12	307.93
2001-02	120.91	277.69	210.35	152.78	393.71
2002-03	164.41	350.87	202.03	218.02	496.39
2003-04	221.87	378.01	233.26	265.91	406.39
2004-05	207.38	340.24	233.09	258.65	332.22
2005-06	253.27	207.87	217.51	239.48	281.02
2006-07	288.77	223.95	196.35	249.89	267.18
2007-08	261.34	193.14	192.06	202.11	216.37
2008-09	112.27	193.21	203.64	99.03	213.90
2009-10	124.51	221.74	229.91	110.98	233.49
2010-11	172.73	253.82	254.08	119.28	347.43
2011-12	181.13	168.08	213.22	143.31	348.50
2012-13	147.69	160.84	214.74	118.23	369.44
2013-14	119.34	162.19	192.83	101.86	421.00
Mean	173.06	242.14	211.57	166.15	328.51

Source: Capitaline Plus Database

Table 4.10 Results of ANOVA

Source of variation	SS	df	MS	F ratio	Sig.
Between Groups	260192.08	4	65048.01	16.586	0.000*
Within Groups	274536.73	70	3921.95		
Total	534728.80	74			

(Significant at 5 percent level)

The ratio of sales to total assets of Ashok Leyland Ltd was at 110.69 percent in 1999-2000 and at 119.34 percent in 2013-14. The ratio was found to be in a fluctuating trend during the period of study and average ratio of Ashok Leyland stood at 173.06 percent. From 255.51 percent in 1999-2000 the ratio of sales to total assets of Force Motors Ltd declined to 162.19 percent in 2013-14. The average ratio stood at 242.14 percent. Similar trend was noticed in the case of Maruti Suzuki Ltd. From 202.11 percent in 1999-2000 and it came down to 192.83 percent in 2013-14. The average ratio stood at 211.57 percent during the period of study. The ratio of sales to total assets of Tata Motors was 106.59 percent and 101.86 percent in 1999-2000 and 2013-14 respectively. The average ratio of Tata Motors Ltd was at 166.15 percent during the study period. The ratio of sales to total assets of TVS Motors Ltd was 292.64 percent in 1999-2000 and it rose to 421.00 percent during 2013-14. The ratio showed

a fluctuating trend during the study period and the average ratio of sales to total assets of TVS Motors Ltd stood at 328.51 percent.

ANOVA result (F ratio) was significant (0.000) at 5 percent and hence the null hypothesis is rejected.

The ratio of sales to total assets is not equal among sample units.

Z score Value of select Automobile Companies

Table 4.11 and 4.12 presents the “Z” score and the status of select automobiles companies for the 15 year period ending 2013-14.

Table 4.11 Z score of select companies in Automobile Industry for the period 1999-2000 to 2013-14

Year	Ashok Leyland Ltd	Force Motors Ltd	Maruti Suzuki Ltd	Tata Motors Ltd	TVS Motors Ltd
1999-00	2.83	4.25	3.97	2.31	4.99
2000-01	2.85	4.03	3.04	1.88	4.73
2001-02	3.04	4.61	3.84	2.55	5.77
2002-03	3.54	5.93	4.13	3.69	7.39
2003-04	4.41	6.51	4.87	4.53	6.29
2004-05	4.04	5.24	5.26	4.47	5.27
2005-06	4.68	3.46	6.11	4.56	4.35
2006-07	5.16	2.92	4.51	4.52	3.84
2007-08	4.58	2.14	4.21	3.42	3.20
2008-09	2.47	5.00	4.29	1.99	3.16
2009-10	2.69	3.94	4.65	1.97	3.34
2010-11	3.11	4.07	4.99	2.14	4.78
2011-12	3.05	6.49	3.98	2.27	4.77
2012-13	2.56	3.55	4.07	1.94	4.83
2013-14	1.62	3.71	3.64	1.34	5.32
Mean	3.38	4.39	4.37	2.91	4.80

Source: Capitaline Plus Database

It is evident from Table 4.11 that the Z score value of Ashok Leyland Ltd improved to 5.16 in 2006-07 from 2.83 in 1999-2000. But it declined gradually and stood at 1.62 in 2013-14. The average Z score value of Ashok Leyland was found to be at 3.38 during the study period leaving the company in safer zone. From 4.25 in 1999-2000 the Z score value of Force Motors Ltd declined to 3.71 in 2013-14. The average Z score value of Force Motors Ltd was found to be at 4.39 during the period of study and the company's financial health was considered good. Z score value of Maruti Suzuki Ltd during 1999- 2000 stood at 3.97 and 3.64 in 2013-14. The average Z score value of

Maruti Suzuki Ltd was found at 4.37 during the study period indicating that the company is in the safer zone of financial health. Z score value of Tata Motors Ltd in 1999-2000 stood at 2.31 and it declined to 1.34 in 2013-14. The average Z score value of Tata Motors Ltd was found to be at 2.91 during the period of study and showed the company is in the grey zone. Z score value of TVS Motors Ltd during 1999-2000 stood at 4.99 and it rose to 5.32 in 2013-14. The average Z score value of TVS Motors was found to be at 4.80 during the study period. Maruti Suzuki Ltd and TVS Motors are in the safer financial health throughout fifteen year period.

Table 4.12 Status of select automobile companies based on Z score

Z score	Zone	Companies
Above 3.00	“safe” zone	Ashok Leyland, Force Motors, Maruti Suzuki Ltd and TVS Motors
Between 1.8-2.99	“grey” zone	Tata Motors
Below 1.8	“Distress” zone	-

Table 4.13 ANOVA Table and Sales Growth

Let's take the hypothesis that sales growth is not positively related to the value of firm.

Source of Variation	Sum of Square	Degree of freedom	Mean Square
Between Sample	1508.96	1	1508.96
Within Sample	1348.60	18	74.92

Sources: Computed and compiled by researcher

For the given value of V1-1 and V2-18, the $F=4.41$ and the calculated value of $F(20,14)$ is greater than this value, so our hypothesis is rejected, and therefore, we conclude that sales growth is positively to the value of a firm.

Table 4.14 ANOVA Table and Profitability

Let's take the hypothesis that profitability is not positively related to the value of firm.

Source of Variation	Sum of Square	Degree of freedom	Mean Square
Between Sample	11157.22	1	11157.22
Within Sample	11912.56	18	661.81

Sources: Computed and compiled by researcher

For the given value of V1-1 and V2-18, the $F=4.41$ and the calculated value of $F(16.86)$ is greater than this value, so our hypothesis is rejected, and therefore, we conclude that profitability is positively to the value of a firm.

Table 4.15 ANNOVA Table and Market Value Ratios

Let's take the hypothesis that market value ratios are not positively related to the value of firm.

Source of Variation	Sum of Square	Degree of freedom	Mean Square
Between Sample	77812.73	1	77812.73
Within Sample	45595.56	18	2533.09

Sources: Computed and compiled by researcher

For the given value of V1-1 and V2-18, the $F=4.41$ and the calculated value of $F(30.72)$ is greater than this value, so our hypothesis is rejected, and therefore, we conclude that market value ratios are positively related to the value of a firm.

Table 4.16 ANOVA Table and Leverage

Let's take the hypothesis that Leverage is positively related to the value of firm.

Source of Variation	Sum of Square	Degree of freedom	Mean Square
Between Sample	900.90	1	900.90
Within Sample	1921.93	18	106.77

Sources: Computed and compiled by researcher

For the given value of V1-1 and V2-18, the $F=4.41$ and the calculated value of $F(8.49)$ is greater than this value, so our hypothesis is rejected, and therefore, we conclude that Leverage is not positively related to the value of a firm, Rather, it is negatively related.

H: There exists close relationship between size, growth and profit of Maruti Suzuki Ltd

Table: 4.17 Pearson's Correlation Matrix Relationship between Size, Growth And Profit Of Maruti Udyog Ltd.

Parameters	Size	Growth	Profit
Size	1	-	-
Growth	.976**	1	-
Profit	.832**	.841**	1

Level of Significance: 5 Per cent

**. Correlation is significant at the 0.01 level (2-tailed).

From the above table it has inferred that there exists positive correlation between the intra-inter variables tested. Therefore the hypothesis framed stands accepted and it has been concluded that there exists close relationship between profitability and growth, sales of selected automobile companies.

The study found that total assets size of the Maruti Udyog Ltd was largest among the three companies considered for analysis on average it was valued at `12449.65 crores, it is `6723.56 crores greater than that of Hyundai Motors Ltd.'s assets size and `12256.37 crores larger than that of Hindustan Motor Ltd. Similarly, it has been observed that sales of the Maruti Udyog Ltd was largest among the three companies considered for analysis on average it was valued at `29978.36 crores, it is `12254.20 crores greater than that of Hyundai Motors Ltd.'s sales and `29221.17 crores larger than that of Hindustan Motor Ltd. Net profit of the Maruti Udyog Ltd was largest among the three companies considered for analysis on average it was valued at `1815.07 crores, it is `1211.29 crores greater than that of Hyundai Motors Ltd.'s assets size and `1828.25 crores larger than that of Hindustan Motor Ltd. The study further observed that there exists positive correlation between the size, growth and profitability of Maruti Udyog Ltd during the study period 2000-01 to 2013-14.

Conclusion and Implications

1. The HMIL (61.67%) has the highest average sales growth rate as compared to HMIL (13.77%).
2. The most valuable company in terms of average market capitalization was MUL in comparison to HMIL. The contribution of HMIL was almost NIL whereas MUL's share was Rs. 20303 Crore in market capitalization.

3. On the basis of ratio analysis MUL was the most valuable company. MUL has got 7 points 2 for liquidity, 2 for profitability, 2 for leverage and 1 for efficiency analysis, whereas HMIL has got 5 points 2 for efficiency, 1 for liquidity, 1 for profitability and 1 for leverage analysis.
4. In terms of profitability MUL was the most profitable company. MUL's score was 568.32 whereas HMIL's share was only 0.70.
5. From the perspective of stock market wealth creation, it can be stated that MUL was the most valuable company during the period 2000 to 2009.
6. In terms of cash flows, which represent the actual economic benefits generated by the assets, MUL was the largest value maximizer. MUL's cash flow was Rs. 834.71 in comparison to the Rs. 429.01 of HMIL's.
7. In terms of market value HMIL score was more than the MUL, it was 4120.05 whereas MUL was 229.41

Analysis of Liabilities (MUL)

Share Capital was 3.83% of the total sources of funds in 2000 and 1.44% in the year 2009. Companies are required to have their own funds (share capital+reserves). In other words, there should not be overdependence on outsider's funds which may trigger financial collapse in adverse conditions. Reserves & Surpluses that were Rs.2779.80 crore in 2000 initially increased to Rs. 4234.30 crore in 2005, which further improved reaching Rs.9200.40 crore of total funds in 2009. Net worth of the company (capital+reserves) was Rs.2912.10 crore of total funds that improved to Rs.9344.90 crore in 2009 a healthy sign indicating strong financial position. The Debt Equity Ratio, which was 0.06 in 2000 declined to 0.01 in 2006 which is quite comfortable because technically debt equity ratio can go up to 5.66. Likewise, Capital Borrowing showed a massive increase from Rs. 546.10 Crore in 2000 to Rs.698.90 by 2009. Proportion of borrowing to total liabilities which was 29.62% in 2001 decreased to 6.96% in 2009. Debentures which was Rs. 300 crore in 2001 decreased to Rs.40 crore in 2007. Further trades dues and creditors, which were Rs.443.8 crore of total liabilities, have increased to Rs.2569.60 crore by 2009 indicating not comfortable handling of short term Liabilities.

Performance Evaluation of Maruti Udyog Limited 1997-2008.

Presently, Maruti Udyog Limited is considered the leaders of Indian automobile market. Lot of awards, achievements & accolades received by those companies tell the truth of their performance. We can measure their performance by focusing on their past & present Production, Sales, Export, Market Share, Net Income, Profit after tax.

Top Ten Export Destinations of Maruti Suzuki

Sr.No	Country	Vehicles Exported (In No) (As on 31 March 2010)
1	Netherlands	78,514
2	Algeria	68,506
3	Italy	52,250
4	United Kingdom	48,641
5	Chile	45,029
6	Germany	38,423
7	Srilanka	30,078
8	Hungary	22,924
9	Nepal	22,368
10	Egypt	18,523

Source: <http://www.marutisuzuki.com>

Analysis of Assets (MUL)

Cash and Bank balance showed gradual increase during the study period from 0.92% in 2000 to 27.84% in 2003 which decreased to 19.31% in 2009. Company's cash & bank balance increased from Rs.31.70 crore to Rs.1939 crore. Investment increased from Rs.95.50 in 2001 to Rest. 5180.70 By 2008. The proportion of investment to total assets, thereafter, increased from 2.54% in 2001 to 55.61% in 2008 during the study period. Company's receivables mainly consisting loans and advances increased from Rs.526.40 crore in 2000 to Rs.1730.90 in 2009. However the proportion has declined from 20.49% in 2007 to 11.53% in 2008. Gross Fixed Assets declined from 101.21% of total assets in 2000 to 86.83% in 2009 hence, the company has been utilizing only 86% of total assets in managing their business. Cash & Bank balance; Fixed Assets form the major part of these managing assets. To conclude, lower debt equity ratio, relatively stable earnings and increased bank funding are signs of maturity and consolidation. The company has performed exceedingly well.

Analysis of Income (MUL)

Profit & Loss a/c is reported in Table 6.3 and 6.4 for the period 1998 to 2009. Company's Sales had a steady growth during the reference period has increased from Rs.6989.50 crore in 2000 to Rs.20530.10 crore in 2009. Net Profit after Tax increased from Rs. 330.10 crore to Rest. 1730.80 crore in 2008 which went down to Rs.1218.70 crore in 2009. However, it sharply went negative Rs. -269.40 crore in 2001 which means that in this year profit was not available for the distribution of shareholders and in this year EPS was also NIL due to non availability of profits. In the year next year the company recovered some losses up to some extent and profit reached to Rs. 104.50 crore in 2002 and to Rs.146.40 crore in 2003 from the negative profit of Rs.-269.40 crore in 2001 thereafter there has been an increase in the net profit from the year 2004 of Rs. 542.10 Crore to Rest. 1730.80 crore in 2008 which again went down to Rs. 1218.70 crore in 2009. Company's Purchases which was Rs. 5616.10 crore decreased to Rest. 5563.40 crore in 2003 and thereafter there was an increase in the company purchases from Rs. 6973.30 in 2005 to Rs.15763.10 crore in 2009.

Analysis of Expenditure (MUL)

Interest paid has risen from Rs.60.20 crore in the year 2000 to Rs. 77.00 crore in 2003 after that there has been a decrease in the interest paid from Rs.52.70 crore in 2003 to Rs. 20.40 crore in 2006. Thereafter it has been increased from Rs. 37.60 crore in 2007 to Rs.51.00 crore in 2009. Even though the % of interest paid by company on various debt instruments has declined; the total quantum of interest paid has increased due to overall increase in volume. Salaries & Wages have increased from Rs.185.71 crore in 2000 to Rs. 463.50 in 2009. There were hardly any bad-debts during the period 2009, 2008, 2006, 2005 and 2003. These were Rs. 0.4 Crore in 2000 which increased to Rs. 2.1 Crore in 2004 and to Rs. 2.2 crore in 2007. Depreciation provision has increased from Rs. 263.10 crore in 2000 to Rs.494.90 Crore in 2004 which decreased to Rs.271.40 crore in 2007 thereafter there has been an increase in the depreciation provision of Rs.568.20 in 2008 to Rs. 706.50 In 2009. Operating profit has shown a steady growth during the years 2000 to 2009 moving from Rs.708.40 crore in 2000 which went down to Rs. 129 crore in the very next year.

Thereafter there has been an increasing trend from Rs. 538.230 crore in 2002 to Rs. 2433.30 crore in 2009.

Profit after Tax and Dividend (MUL)

Dividend paid showed a steady increase from 2000 to 2009 except 2001 where profit was negative, in this year profit was not available for the distribution of shareholders that is why EPS was also NIL in this year. The profit was in this year Rs. -269.40 crore the company recovered this loss in the very next year when the profit was Rs.118.30 crore and Rs.282.10 crore in 2003. The EPS of company in 2000 was 11.22 against the net profit after tax and dividend of Rs.297 crore, which decreased to 2.45 in 2002 and to 3.59 in 2003. In 2001 EPS was NIL due to negative profit in this year. There has been an increase in the EPS of company from 2004 (17.27%) to 2008 (54.91%) which again went down to 38.68 in 2009.

Analysis of Income (HMIL)

Profit & Loss a/c is reported for the period 1999 to 2009. Company's Sales had a steady growth during the reference period. Sales have increased from Rs.1671.48 crore in 2000 to Rs.15522.55 crore in 2009. Net Profit after Tax increased from Rs.59.34 crore in 2000 to Rs. 274.61 crore in 2002 but in the very next year it went down to Rs. 164.75 crore in 2003 again there was an increase from the year 2004 to 2006 but after this it again went down to Rs. 466.74 crore in 2007 and to Rs. 195.63 crore in 2009. In the year 2000 and 2001 whatever the profit company earned it used all the profit in the appropriation and due to this appropriation company did not distribute any dividend in these years. Company's Purchases also showed an increase of Rs. 13118.60 Crore in 2009 from Rs.1247.03 Crore in 2000.

Comparison on the basis of Liquidity & Profitability Analysis

S.no.	Liquidity Analysis	MSIL	HMIL	Profitability Analysis	MSIL	HMIL
1	CR	1.62	1.70	ROI	0.35	0.20
2	LR	1.19	0.95	ROE	539.59	31.37
3	ACR	0.36	0.50	ROA	71.91	36.43
	Sum of Mean Value	3.18	3.15	Sum of Mean Value	611.86	68.00
	Avg. Score	1.06	1.05	Avg. Score	203.95	22.67
	Ranking	1	2	Ranking	1	2

Interpretation

It is evident from the table that MUL leads in the liquidity analysis as compared to HMIL. MUL's liquidity score is 1.06 whereas HMIL's liquidity score is 1.05. It can be concluded that both the companies are not in good position to meet their short term obligation on time during the reference period, because in most of the years during the study period ratios are below than the recommended value.

Comparison on the basis of Efficiency & Leverage Analysis

S.no.	Efficiency Analysis	MSIL	HMIL	Leverage Analysis	MSIL	HMIL
1	FATR	4.62	5.77	CGR	15.40	1.89
2	STR	15.16	9.30	DER	0.14	0.69
3	DTR	16.34	114.07	ICR	29.50	42.56
	WCTR	15.51	8.84			
	Sum of Mean Value	51.62	137.98	Sum of Mean Value	48.61	45.14
	Avg. Score	12.91	34.50	Avg. Score	16.20	15.05
	Ranking	2	1	Ranking	1	2

Interpretation

It can be observed from the table that HMIL leads in the efficiency analysis as compared to the MUL efficiency analysis and MUL leads in leverage analysis as its score is 15.01 and HMIL's score is 14.95.

Comparison on the basis of Market Value Analysis

S.no	Market Analysis	MSIL	HMIL	Market Analysis	MSIL	HMIL
1	EPS	26.99	314.64	EVA	0.31	0.33
2	PER	11.08	0.00	MVA	0.89	0.00
3	BVPS	194.04	3805.40	TQ	0.91	0.00
	Sum of Mean Value	232.11	4120.04	Sum of Mean Value	2.11	0.33
	Avg. Score	77.07	1373.35	Avg. Score	0.70	0.11
	Ranking	2	1	Ranking	1	2

Interpretation

It is evident from the table that HMIL leads in the market valuation as compared to MUL. (As per old method of calculation). MUL leads in the market valuation as compared to HMIL. (As per new method of calculation)

Points based on Ranking

Particulars	Points	
	MSIL	HMIL
Liquidity Analysis	2	1
Profitability Analysis (sales)	2	1
Profitability Analysis (investment)	2	1
Efficiency Analysis	1	2
Leverage Analysis	2	1
Market Valuation (old ratios)	2	1
Market Valuation (new ratios)	2	1
Total Points	13	9

It is clear from the above table that on the basis of rank got by each company points have been given. If a company has got 1st rank, according to these 2 marks have been given to that company for every analysis and if company has got 2nd rank, only 1 mark has been given to that company. MUL has got 13 points in comparison to the 9 points of HMIL so it can be concluded that MUL is satisfactory in most of the analysis.

Researcher concludes the Study on the basis of conclusion some suggestions have been given at the end for the improvement in the financial position of the companies in near future. The Researcher has tried her best to give suggestions on the basis on conclusions drawn by her, if management tries to follow these suggestions, they can remove their drawbacks which have been mentioned at appropriate places in her study work.

Most of the analysis has been made on the basis of significant ratios. The present study brings out the main findings as follows:

Conclusion

To sum up, the present study has thrown light on the various financial aspects of the companies. There are certain drawbacks which have been studied at the appropriate place; suggestions for improvement have also been submitted. It can be hoped that if the management tries to follow these suggestions some shortcomings which have been pointed out can certainly be removed. The researcher has tried her best to do justice with her study. Companies can improve their profitability in the coming future by working upon their shortcoming. In view of the conclusions emerged out regarding the financial performance evaluation of MUL, it can be very safely said that efforts should be further made in the direction of achieving excellence in its working by translating the above suggestions into practice so that company stands to the forces of global competition. The Researcher is sure that if these recommendations are given due consideration by the management of the companies, particularly accounting people, they will go a long way to improve the profitability and administration of the company. The researcher will be amply pleased and awarded if her findings and recommendations get due accolade by the Worthy Examiners, Professionals, Academicians, Practicing Managers. The research suggested few areas where there is a great potential for further research, which will benefit not only to bankers and industry but also the public at large. The summary of conclusions, recommendations and findings of the study will be made available in the last chapter along with the directions for future research.

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Fifth Chapter

Summary of Conclusions, Findings and Suggestions

- **Introduction**
- **Findings of the study**
- **Suggestions of the study**
- **Direction for Future Research**

Fifth Chapter

Summary of Conclusions, Findings and Suggestions

Introduction

The researcher dealt with the analysis and interpretation of the financial performance of Udyog India Limited in the previous chapter in detail. In this chapter a consolidated research report covering summary, findings, conclusion and suggestion of the whole study will be described. In this chapter, researcher comes out with the summary of the whole research work. The findings of the research work also discussed and on the basis of findings, researcher tries to give some valuable suggestions also.

The corporate sector is the back bone of the Indian economy so far as it provides a vital, effective and organized system for the growth of industrial as well as non-industrial sectors of the economy. The rapid growth of corporate sector in India and the increasing scale of its operations and investments have turned it into the most dominant form of economic organisation. The ever increasing importance of the corporate sector in the economic growth of the country has attracted several academicians, professional institutions, researchers and administrators. There is need to study industries performance appraisal which ultimately shall determine the overall industrial development in future. The present study is a small endeavour in that direction.

The study aims at making “**Evaluation of financial Performance of Udyog Ltd since 2000-2001**” and specifically aims at assessing the trends in the production, capacity utilisation, sales and market shares, analyzing profitability position and its trends and determinants of profitability, analyzing financial health, nature of factors which affect financial structure and economic value added analysis of **Udyog Ltd**. The period covered under the study extends over 10 year from 2000-01 to 2009-10. The data for the study were taken from “PROWESS” database which is the most reliable on the empowered corporate database of Centre for Monitoring Indian Economy (CMIE). The important statistical techniques used in the study are correlation, multiple regressions, analysis of variance, F-test, arithmetic mean, co-efficient of variation and compound annual growth rate besides simple percentages, ratios and graphs.

Summary of Conclusions

This chapter, being the concluding part of the study, is an endeavour to present a summarized version of the findings of the present study. The performance of a company is judged by its financial statements, which throw light on the operational efficiency and financial position of the company. Monitoring the financial health of a company by checking its sales and profit growth is not sufficient today. It is necessary to benchmark the efficiency in the utilization of capital and assets, return to shareholders as well as prediction of financial distress. The prediction is one of the major factors, which helps to avoid bankruptcy. In the literature, the likelihood of bankruptcy is associated with financial ratios. For instance the probability of failure is higher for firm with a low current ratio, high debt ratio and low rate of return. The empirical studies by Bearer (1966) and Gupta (1979) identified ratios which have discriminating power. What is however required from practical point of view is the understanding of seriousness posed by low performing ratios and the combined effect of favourable and unfavourable ratios (Pandey 2008). The technique of multiple discriminate analysis helps to do so. Z score analysis- a multi discriminate analysis has been introduced by Altman in 1968 to evaluate the general trend in the financial health of an enterprise over a period of time. Edward Altman was the first in applying discriminate analysis in finance for studying bankruptcy.

Automobile industry is the key driver of any growing economy. Due to its deep forward and backward connection with almost every segment of the economy, the industry has a string and positive multiplier effect and thus propels progress of a nation. The automobile industry comprises of the automobile and the auto components sectors. It includes passenger cars, light, medium and heavy commercial vehicles, multi utility vehicles such as jeeps, tractors, two and three wheelers and auto components. The Indian automobile industry has made rapid strides since delicensing and opening up of the sector in 1991. It has witnessed the entry of several new manufacturers with the state of art technology, thus replacing the monopoly of few manufactures. The norms for foreign investment and import of technology have also been liberalized over the years and at present 100 percent foreign direct investment (FDI) is permissible under the automobile route in this sector, including passenger car segment. In the interim budget 2014-15, the central government had reduced excise duty on scooters and two wheelers from 12 to 8 percent and medium segment sedans

from 27-24 percent to 24-20 percent respectively. This reduction in excise duty was extended for another six months till December 2014(Union Budget, 2014-15).

The study was an attempt to identify the financial health of select automobile companies in India. The study covers a period of fifteen years from 1999-2000 to 2013-14. TVS Motors Ltd showed the highest average Z-score value at 4.80. The low average Z-score of Tata Motors Ltd at 2.91 states that the company is at the grey zone and it is the alarm for the management to take necessary steps to improve the performance of the company –improving working capital, downsizing long term debt and improving sales. The average Z-score values of Ashok Leyland, Force Motors and Udyog were 3.38, 4.39 and 4.37 respectively and imply the companies are in the safer zone.

The automobile industry is considered an engine for economic growth of the country. Udyog has proven that it is always ahead of its competitors because of continuous innovations and technological upgradations. The company has set a benchmark of excellence because of Research & Development activity as Udyog believes that this activity will enable the company to offer superior and environment friendly products to customers with complete satisfaction. Udyog's environmental performance is really uncountable. Considering the growing vehicle pollution, the company introduced advanced K-Series engine in its vehicles which resulted in reduction of CO, THC and NOx emissions by almost 50 percent. As far as economic performance is concerned, Udyog's last few years' statistics of Domestic sales and Export narrates that still Udyog is the leader of Indian Automobile sector. Exports scenario of MSIL is continuously decreasing since 2010-11 to 2013-14 reason behind this decrement may be the ineffective industrial policy and tax burden on export. There are number of other competitors entering the market with promising products which are giving a tough competition to MSIL.

Major findings of the Study

The main objective of the liquidity ratio is to measures the liquidity of the firm and its ability to meet its maturing short term obligation, it is also recognized as the ability of a firm to realize value in money, the most liquid of assets among all assets. It is good for the company to have sound liquidity, but the implication of excess liquidity have drastic impact on company's economy, though it is guarantor of solvency. High liquidity reflects lower profitability, deterioration in managerial efficiency, increased speculation and unjustified expansion, extension of too liberal credit and dividend

policies. On other hand too little liquidity create financial panic and lead to frustration, business objections, and reduced rate of return, missing of profitable business opportunities and weakening of morale. The outcome of the liquidity analysis of Udyog company shows that it is having better solvency position due to higher liquidity and is in safe position, even its liquidity position is not so high which may create risk in coming future. But company is meeting out its short term quantitative obligations like quantum, structure and utilization of liquid assets efficiently and qualitative obligations like meeting all present and potential demands on cash in a manner that minimize the cost and maximize the value of the firm. It has to maintain its liquid position in order to meet out its quantitative and qualitative obligations safely for better future.

1. Since we know that automobile sector contributes a lot in a national economy of the country where Udyog India Company plays a key role in this contribution. In this paper the financial performance of Udyog India Limited has been observed. The key findings of the study are as follows:
 - The company has the largest sales and service network provider amongst car manufacturers in India.
 - Sales figure of previous data shows that the company has performed well in the market.
 - Performance of the company in domestic sales is better compared to export market.
 - Market study shows overall performance of the sales of vehicles is satisfactory in all types of market.
 - The effect of sales on Profit after Tax [PAT] is found to have significant relationship.
 - Impact of sales in Earning Per Share [EPS] shows insignificant relationship.
 - Upcoming models of MSIL are promising in such a manner that they may give a tough competition to the rival companies. This should directly influence the overall performance of the company.
2. The production of Udyog Ltd in market shows fluctuating trend throughout the study period. Sector followed by passenger cars and multi utility vehicles and commercial vehicles. With a view of making an inter-industry comparison of the

overall production performance, production trends are taken under consideration. The projection of production of automobiles in India shows that multi utility vehicles are having good market potential in our country. Dispersions in production of industries under three sectors revealed through the mean value of the series and value of co-efficient of variation for each industry. It is observed that Udyog India Ltd shows better performance in this regard.

3. The capacity utilisation ratio of commercial vehicles sector varied in a range of 67.59 per cent from 29.29 per cent to 96.88 per cent, passenger cars and multi utility vehicles varied 56.68 per cent from 34.75 per cent to 91.43 per cent and two and three wheelers sector varies in a range of 29.57 per cent from 43.84 per cent to 73.41 per cent during the study period. It is therefore obvious that the Indian automobile industry has not utilized its plants capacity on an average of more than 40 per cent which remains idle during the study period. **The mean capacity utilisation is the highest (being more than 100 per cent) in Udyog India Ltd**, which indicates that company utilised its plants effectively and efficiently among the industries. Udyog India Ltd showed better performance with regard to their capacity utilisation. The capacity utilisation of the industry varies greatly irrespective of the sector of which they belong.
4. The sales of passenger cars and multi utility vehicles market show rising trend throughout the study period. However, sales of commercial vehicles market shows fluctuating trend. The projection of sales of **Udyog Ltd** in India revealed that commercial vehicles, passenger cars are growing markets in the years to come in our country. The analysis of company - wise dispersion in sales of Indian automobiles industry over the study period reflected the same picture with regard to production performance.
5. The analysis of company - wise dispersion in market shares of Indian automobile industry reveals that the mean rates of market share vary greatly in case of all the industries under examination irrespective of the sector of which they belong. It is observed that Udyog India Ltd in passenger cars and multi utility vehicles has the highest market share during the study period. Capital Gearing Ratio of MSIL: The CGR of HMIL was more than the standard set by SEBI except 2000, 2007, 2008 and 2009 where it was less than 1:4. On an average it was 1.89 times only.

6. Debt Equity Ratio of MSIL: The debt-equity ratio of MSIL was less than the standard norms i.e. 1:1 during the study period. On an average it was 0.14 only during the reference period. It shows a sound long-term financial strength of the company from the creditors' point of view. The creditors are interested in low debt equity ratio. Debt Equity Ratio of HMIL After analyzing the DER of HMIL, we found it was less than the standard norms of 1:1 except 2009 where it was 1.38.
7. Interest Coverage Ratio of MSIL: In the year 2001 it was almost NIL in the case of MSIL which means profit was negative in this year and the company had to face difficulty in paying its interest on loan on time.
8. Interest Coverage Ratio of HMIL: After analyzing the ICR of HMIL we found from the year 2000 to 2006 there was an increasing trend in this ratio and after that it started decreasing which is not a good signal for the company because this means that the company is not in a good position to pay its interest on loan on time. In 2009 it went very down to 2.35 as compared to previous year ratio which was 10.48.
9. The profitability performance of Udyog India Ltd under review has been studied by computing various ratios relating to profitability. The profitability of the Udyog India Ltd measured through operating profit margin ratio is satisfactory in Indian automobile industry and showed adequate to cover the fixed charges and dividend reserve during the study period. However, Udyog India Ltd gives a satisfactory return to its shareholders during the study period. The overall analysis of profit margin ratio shows that the operating efficiency of Indian automobile industry is satisfactory from the point view of shareholders. Gross Profit Ratio of HMIL: The Gross Profit Ratio of HMIL can't be said satisfactory during the study period in 2009 it was 6.31. In all the years from 2000 to 2008 it was between 10 to 20 percent which indicates that the company can't run its operation activities very smoothly. Net Profit Ratio of MSIL: In 2000 MSIL has earned a Net Profit of 34.87 percent and after that there has been a decreasing trend up to the year 2004 but from the year 2006 to 2008 it shows an increasing trend. The main reason of low net profit ratio was more operating and non-operating expenses which need control.
10. Efficiency analysis measures how efficiently the firm employs its resources. The study revealed that Udyog Company is having better speed of converting various

accounts into sales or cash. The long term financial stability of the firm may be considered as dependent upon its ability to meet all the liabilities, including those not currently payable. Current Ratio of MSIL: The Current Ratio of MSIL has not been satisfactory as it does not contain the ideal ratio of 2:1. After analysing the Fixed Assets Turnover Ratio (FATR) of MSIL, we found that the company has not used its fixed assets in a proper way to generate more revenue. Stock Turnover Ratio of MSIL: After analysing the Stock Turnover Ratio of the company, it can be said that the company's position was sound. There has been a better utilization of stock in this company.

11. Udyog is having sound financial strength which is good for shareholders, investors and other interested parties who are influenced by company's growth and performance and in future would prefer to invest in company. Difficulties for Udyog Company will arise when its massive retained earning fund and other financial resources lay idle and company does not have any effective development and expansion program to invest them. The idle resource will reduce its earning and will increase liability of shareholders. So Maruti Company has to concentrate on this matter for better future and growth.
12. Market value analysis indicates the firm's stock price to its earnings and book value per share. These ratios are indicator of investor's evaluation of companies past performance and future prospects and their likeness and dislikes in regard to the firm. In the study it has been found that Udyog Company has sound market value and it has better EPS, PER & BVPS ratios which reflect Udyog company's better capital productivity, its track record and distribution policy, speculative trading, state of economy, efficiency of management. If company kept this market momentum then during recession it will not be in trouble but will gain more confidence among the investors.
13. The study found that Maruti has performed better and leads in the liquidity analysis and secured first rank.
14. Overall analysis of a company's found that performances have a deep impact on market value of the respective companies share price. Market value analysis of companies indicates that share price of Maruti and Tata will move up if certain strategic correction might be carried out in the market.

Suggestions/Recommendations of the Study

Keeping in view of the above observations relating to the study, the following measures are suggested which would go a long way to improve the performance of Udyog India Limited.:

1. It is suggested that still there is a need for Indian automobile industry to adopt producing and selling wide range of products, to adopt better market strategy, by reducing cost and revising selling prices to enhance the value of turnover so as to go ahead in the era of competitions.
2. It is obvious from the study that Indian automobile industry has not utilised its plan capacity on an average of more than 40 per cent which remain idle during the study period. It is therefore suggested that the management of the selected unit should concentrate on overcoming the problem of power cuts, implementing research and development programs, application of latest technology and making industrial relation cordial and congenial to increase the capacity utilization.
3. The profitability trend of selected Indian automobile industry experienced a strong tendency in profitability to decline over the study period. Therefore, it is suggested that all the selected industries should undertake cost control measures further so that increased profit margin of the companies may enhance the earning power ratio. In this regard further reduction of excise duty, tariff and surcharge of sales tax and steps to control operating expenses are the measures suggested for the improvement of profitability trend.
4. Cost accounting and cost audit should be made mandatory in automobile industry and they should be called to prepare cost sheet along with their annual financial statement.
5. A systematic, prompt and regular flow of information and its analysis is important for improving productivity, efficiency and profitability. A suitable management information system needs to be evolved which will take care of the data requirement of administrative officers as well as other units like factory etc., for internal management and control. Appropriate organisational arrangements should be made for the successful implementation of management information system in Indian automobile industry.
6. At present, in India the financial statements are presented on historical cost basis. As such these statements do not exhibit the correct realizable value of the assets on the date of the balance sheet. Thus, the true profitability cannot be ascertained

on the basis of the figures given in the balance sheet on historical cost basis. It is, therefore, suggested that a supplementary statement should be included in the annual report showing the figures of assets and liabilities on the basis of current values.

7. At present, the profit and loss account of multi-product concern is disclosed in a consolidated form which cannot measure and judge the performance and profitability of each activity. Hence, the profit and loss accounts should be prepared on departmental activity basis by such multiproduct concerns. As the Current Assets of the companies reveal that these are not sufficient to meet its current liabilities so the companies should try to increase their current assets. Companies should determine the maximum and minimum cash balance to be kept in the business operations. A separate cell should be established for the proper control on cash balance. It is suggested that the companies should exercise Budgetary Control System to make proper cash management in the companies and if there is any idle cash and bank balances, it should be utilized in a profitable manner. Proper investment of extra cash and bank balance into short term securities should be considered so as to enhance the profitability of the companies.
8. It is also suggested that EVA has been used as a performance evaluation tool of the organisation. The cost drivers of EVA like sales growth, operating profit margin, cost of capital etc., should be identified and the performance should be measured based on the improvement made in this value drivers. It appears to be useful in spotting changes in a company's on-going performances that are hidden in EPS.
9. In order to improve the Operating Profit Ratio of the companies it is suggested that the management of the companies should exercise control over operating cost. To serve this purpose, the companies should acquaint its employees with technology up gradation through training and refresher courses so that the productivity of the employees in the companies might be increased and operating cost be reduced.
10. The Operating Expenses are increasing with the growth in sales volume. The companies should introduce system of Internal Control by which this can keep a check on operating expenses. In order to reduce the Operating Expenses further, it is suggested that the existing expanded capacity of the

companies should be utilized fully so that the Operating Expenses could further be minimized. The Management of the companies should exercise control over operating expenses.

11. A vehicle retirement programme will assist not only in fleet modernization and reduction of emission but will also provide quantum fillip to the demand should be put in place.
12. There is a need to brief the international community's on technological and quality related capabilities at Indian automobile industry. Substantive efforts are required for educating opinion leaders and build a strong 'made in India' brand in overseas markets. Existing incentives for promoting exports are considered inadequate. An institutional mechanism such as the Automobile Export Promotion Council which can address industry-specific issues and facilitate exports is urgently required.
13. In MSIL the Fixed Assets Turnover Ratio was lower than the standard norms of 5 to 6 times in some years, which indicates sufficient idle capacity. It is suggested that immediate steps be taken by the companies to utilize their resources.
14. There was a fluctuating trend in the Working Capital of MSIL because the working capital in terms of sales could not justify its size. Hence it is suggested that accurate forecasting of working capital should be encouraged to the possible extent so that the companies might enhance its profitability.
15. The main sources of funds especially Borrowed Funds and Investments need to be effectively managed so as to enhance the profitability in the companies. Similarly, Capital Expenses needs to be properly planned and effectively managed so as to justify its expansion.
16. The companies in future should raise funds for further expansion/diversification purpose from long term borrowings instead of Head Office Account. This can be done by issuing debentures and receiving more loans from banks and public. A strict vigilance should be observed to ensure that right funds are used for right purposes.
17. Although, the sales of the companies shows an increasing trends, but still it is strongly recommended that sales should be increased by applying new methods in the market for the purpose of rapid increase. Special market surveys are made in order to find out the avenues of pushing their goods.

18. MIS should be made more sound so that the implementation of top management decisions might be more effective and quicker at all levels so that the profitability of the companies might be strengthened by taking necessary action in time.
19. Modernization of Plant should be made by way of arranging funds at a concessional rate of interest or by bringing out initial public issue so as to minimize the wastage and enhance the profitability of the companies.

Summary of Conclusions

Easier and faster mobility of people and goods across the regions, countries and continents is a cherished yearning of mankind. The automobile industry's potential for facilitating the mobility is enormous. Wheels of development across the globe would have to be powered by the industry. However, a seamless development of this industry across countries and continents alone will help in realisation of this objective. For such seamless and barrier free development of the sector, countries will have to come together and develop better understanding. Industry across countries will have to meet challenges of new technologies, alternative fuels and affordability of automobiles by people at large through constructive co-operation. The earlier we are able to achieve this the better it would be for the world development.

The Automobile industry across the world has great potential to trigger sustained employment, mobility, inter-sect oral industrial growth and thus conducive conditions for general economic and social well being. However, there is need to promote and sustain international co-operation between government and industry. There is need for co-ordinated research and development, standardization of designs and broader technologies, effective cost cutting to enhance affordability and loosening of trade barriers across the globe. The industry licensing and foreign investment reigns in the country has been progressively liberalised. The freeing of the industry from restrictive environment has on the one hand helped to absorb newer technologies, align itself to the global development and realize its potential; on the other hand, this has significantly increased industry's contribution to overall industrial growth. The Automobile industry being the driver of economic growth, we should use it as a lever of accelerated growth in the country. It is concluded that conscious efforts should be made to fine- tune government policy to enable the Indian automobile industry to realise its potential to the fullest capacity.

The automobile industry is considered an engine for economic growth of the country. Udyog has proven that it is always ahead than its competitors because of continuous innovations and technological upgradations. The company has set a benchmark of excellence because of Research & Development activity as Udyog believes that this activity will enable the company to offer superior and environment friendly products to customer with complete satisfaction. Udyog's environmental performance is really uncountable. Considering the growing vehicle pollution, the company introduced advanced K-Series engine in its vehicles which resulted in reduction of CO, THC and NOx emissions by almost 50 percent. As far as economic performance is concerned, Udyog's last few years' statistics of Domestic sales, Export, narrates that still Udyog is the leader of Indian Automobile sector.

Direction for Future Research

Any research study can explore only a limited field of knowledge. There are many aspects which need to be researched further. In the present case also there is a considerable scope for further research. In spite of every attempt to make this study more intensive, there are quite many fields which remain unveiled owing to constraints of time and resources. Financial study, specially, has numerous dimensions. Each component of the financial statement has got scope for an extensive study. An analysis of the social profitability of the automobile industry with the help of value added and the other techniques can provide an ample scope for research. A reasonable scope for further research also exists in the area of diversification, mergers, takeover etc.; another interesting theme would be to identify sick and healthy units separately in the automobile industry and find out discriminating characteristic of each group with respect of performance. A study can also be undertaken in the area of performance appraisal comparing private sector and public sector.

The findings of the study may not have universal applicability since the study is confined to a period and to a definite scheme of corporate sector in India. Hence, to arrive at any general conclusion, the hypothesis need further testing by way of addition to research in the same field in different periods and even in different fields in the same period. Last but not the least; one can make a comparative study of corporate performance in the pre liberalization and the post liberalization period. Therefore, research work in the above mentioned area would be of great practical significance and would throw more light on the operation of automobile industry in our country.

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